SERVICE MANUAL



US Model Chassis No. SCC-754D-A



P3 CHASSIS

March, 1986

SPECIFICATIONS

Television system American TV standards

Channel coverage VHF: 2-13

UHF: 14-69

Cable TV: 1-125

Picture tube

Trinitron tube

13-inch picture measured diagonally

14-inch picture tube measured diagonally

90-degree deflection

Input

Audio R/L

phono jack, 408 mVrms (100%

modulation), more than 47 k ohms

phono jack, 1 Vp-p, 75 ohms,

unbalanced, sync negative

Output

Audio R/L

phono jack, 408 mVrms

(100% modulation)

Power requirements

120 V AC, 60 Hz

Power consumption

100 W (max.)

Accessories supplied

Remote Commander RM-731

with 2 size AA batteries

VHF/UHF telescopic dipole

antenna AN-18 Antenna connector

(300 ohm to 75 ohm matching

transformer)

Optional accessories

U/V mixer EAC-66

Connecting cord RK-74A

VMC-2P3

Design and specifications are subject to change without notice.



TRINITRON® COLOR TV SONY®



TABLE OF CONTENTS

Secti	<u>Title</u>	Page
1.	GENERAL	
1-1.	Location of Controls	4
1-2.	Timer/Block	5
2.	DISASSEMBLY	
2-1.	Picture Tube Removal	9
2-2.	Anode Cap Removal	9
3.	CIRCUIT ADJUSTMENT	
3-1.	Safety Related Adjustments	10
4.	DIAGRAM	
4-1.	Block Diagram	12
5.	EXPLODED VIEWS	
5-1.	Picture Tube	15
5-2.	Chassis	16
6.	ELECTRICAL PARTS LIST	17
7.	REMOTE COMMANDER (RM-731)	
7-1.	Schematic Diagram	26
7-2.	Printed Wiring Board	26
7-3. 7-4.	Exploded Veiw	27
/	Licetical I alla List	28

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY SHADING AND MARK

ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SAFETY CHECK-OUT

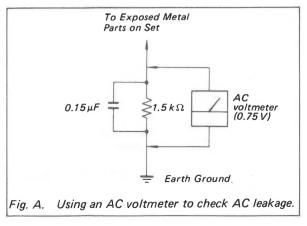
After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

- 1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- 2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
- 4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
- Check the line cord for cracks and abrasion.
 Recommend the replacement of any such line cord to the customer.
- 7. Check the condition of the monopole antenna (if any).

 Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the

impalement on a broken antenna to the customer, and recommend the antenna's replacement.

- 8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
- Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



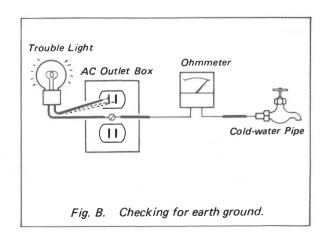
LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- 2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

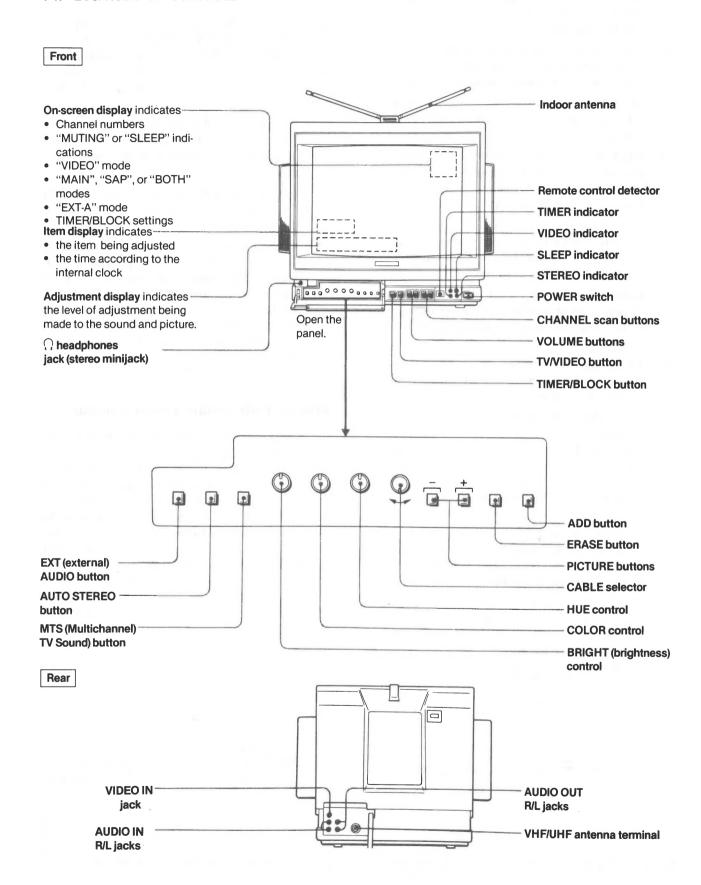
HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



SECTION 1 GENERAL

1-1. LOCATION OF CONTROLS



1-2. TIMER/BLOCK

Internal clock

Once the internal clock is set, the current time will appear on the screen. It is necessary to set the clock correctly to activate the program start TIMER and channel BLOCK.

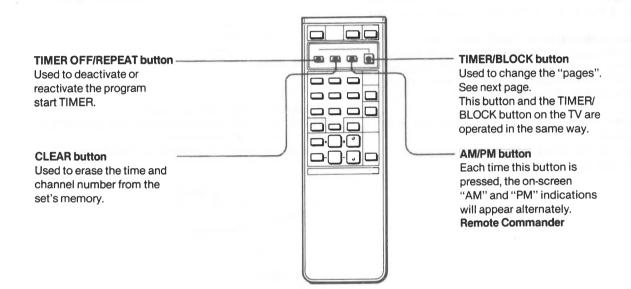
Program start TIMER

Makes a program of your choice appear on the screen automatically.

Channel BLOCK

Blocks a channel from appearing on the screen for 12 hours. Use channel BLOCK to prevent children from watching undesirable programs.

The buttons used for setting the internal clock, program start TIMER and channel BLOCK are located on the Remote Commander.



Notes

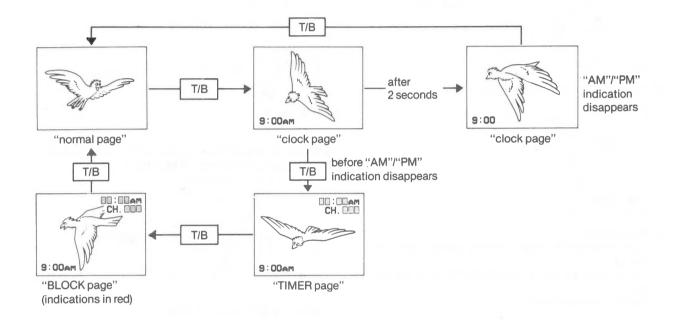
- All settings will be erased from the set's memory if the set is unplugged, or if a power failure occurs.
- The TIMER and BLOCK will operate only if the clock is set correctly.
- If the TIMER and BLOCK are set for overlapping times on the same channel, the blocked channel will appear on the screen at the time set on the TIMER.

To set the internal clock, program start TIMER and channel BLOCK, you must summon the corresponding "pages": "clock page", "TIMER page" and "BLOCK page".

To change the "pages", press the TIMER/BLOCK button as illustrated below.

The illustration shows how to change the "pages" after the clock has been set.

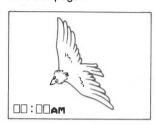
T/B stands for "Press the TIMER/BLOCK button."



HOW TO SET THE INTERNAL CLOCK

Ex. To set the clock to 8:05 PM, follow the steps below.

1 Press TIMER/BLOCK once to change from "normal page" to "clock page".



"clock page"

2 Press 0, 8, 0, 5 AM/PM (0 necessary).

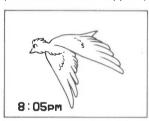


3 Press ENTER.

(If you have made a mistake, press CLEAR and return to step 2.)

The numbers will blink to indicate that the clock has been set:

(The 0 in front will disappear.)



THE "AM"/"PM" indication will disappear after 2 seconds.

To summon "TIMER page", press TIMER/BLOCK **before** the "AM"/"PM" indication disappears.

To return to "normal page", press TIMER/BLOCK **after** the "AM"/"PM" indication has disappeared.

To reset the clock, summon "clock page" and press CLEAR before the "AM"/"PM" indication disappears.
Then follow the steps above from step 2.

Note

12:00 AM stands for midnight.

12:00 PM stands for noon.

HOW TO SET THE PROGRAM START TIMER

Make sure that the clock has been set correctly before setting the program start TIMER.

Ex. To set the TIMER for a program which begins at 10: 30 PM on channel 12, follow the steps below.

1 Press TIMER/BLOCK once to change from "normal page" to "clock page."



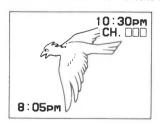
"clock page"

2 Press TIMER/BLOCK before the "AM"/"PM" indication disappears and summon "TIMER page".

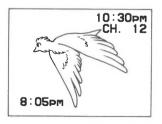


"TIMER page"

3 Press 1, 0, 3, 0, AM/PM, ENTER. Numbers will blink to indicate that the time has been set.



4 Press 1, 2, ENTER (0 not necessary). Numbers will blink to indicate that the channel has been set.



The TIMER indicator will light up to indicate that the TIMER has been set.

If you have made a mistake, press CLEAR and return to step ${\bf 3}$.

At the preset time, the selected channel will appear on the screen and the TIMER indicator will go out. The TIMER will operate whether you are watching a TV program or a VCR playback, or even if you have turned off the TV. If no button* is pressed within 2 hours after the preset time, an "OFF" indication will appear on the screen for 1 minute. If a button* is still not touched during the 1 minute, the TV will turn off automatically as a safety precaution.

* AUTO STEREO button and HUE, COLOR, BRIGHT controls excepted.

The TIMER operates only once, but the time and the channel will remain in the set's memory.

If, at a future date, you want to see the same channel at the same time, press TIMER OFF/REPEAT. The TIMER indicator will light up to indicate that the TIMER has been reactivated.

If you want to deactivate the TIMER press TIMER.

OFF/REPEAT again so that the TIMER indicator goes out.
It is not necessary to summon "TIMER page" to use the
TIMER OFF/REPEAT button. Furthermore, this button is
effective even if the TV has been turned off.

To clear the TIMER setting, summon "TIMER page" and press CLEAR.

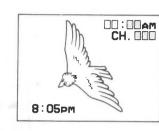
To reset, clear the setting and follow the steps on the previous page from step 3.

HOW TO SET THE CHANNEL BLOCK

Make sure that the clock has been set correctly before setting the channel BLOCK.

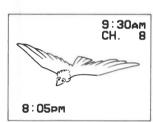
Ex. To set the BLOCK for a program which begins at 9:30 AM on channel 8, follow the steps below.

1 Press TIMER/BLOCK three times to change from "normal page" to "BLOCK page".



"BLOCK page" (indications in red)

2 Press 0, 9, 3, 0, ENTER (0 necessary). Numbers will blink to indicate that the time has been set. Press 8, ENTER (0 not necessary). Number will blink to indicate that the channel has been set.



The BLOCK has now been set.
If you have made a mistake, press CLEAR and return to step 2.

At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked.

Normal reception will be resumed after 12 hours. To return to normal reception while the channel is blocked, recall "BLOCK page" and press CLEAR.

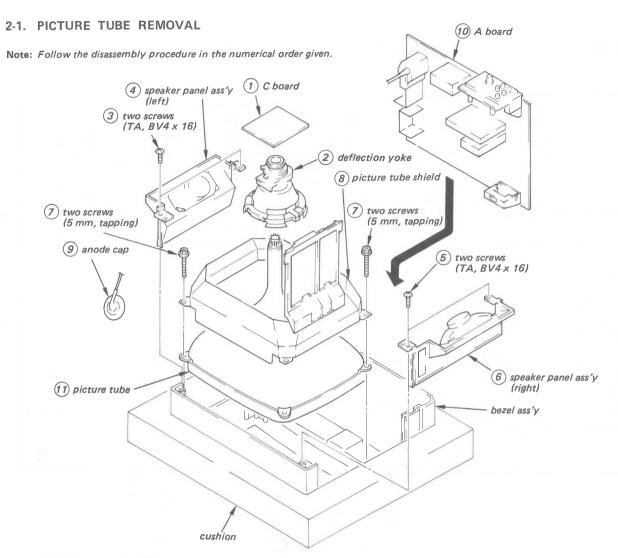
The BLOCK setting blocks a specified channel for the same 12-hour period everyday.

To clear the BLOCK setting, summon "BLOCK page" and press CLEAR.

To reset, clear the setting and follow the steps above from step 2

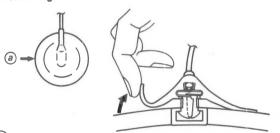
SECTION 2

DISASSEMBLY

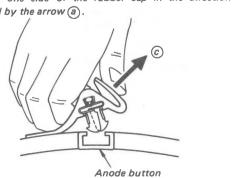


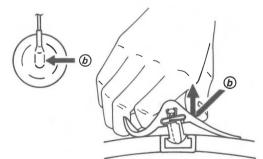
2-2. ANODE CAP REMOVAL

Removing Procedures



1) Turn up one side of the rubber cap in the direction indicated by the arrow (a).





(2) Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b)

(3) When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

SECTION 3 CIRCUIT ADJUSTMENT

R524 ADJUSTMENT (HOLD DOWN)

3-1. SAFETY RELATED ADJUSTMENTS

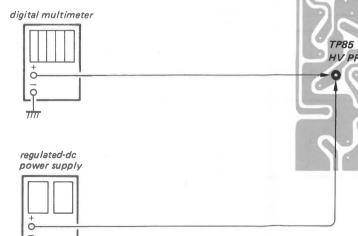
When replacing the following components (marked with on the schematic diagram), perform the adjustment as

R521, R522, R523, R524, R530, R534, C307, C524, D502, D512, T503, IC301

- 1. Receive the dot signal PICTURE VR MIN BRIGHT VR MIN
- 2. +B voltage check Confirm that the +B voltage (135V Line) is less than 136.2 Vdc during input of 130 $^{+2.0}_{-0}$ Vac.
- 3. Protector voltage check Confirm that a voltage of $20.0^{+1.3}_{-1.7}$ Vdc appears between TP85 and ground during input of $120^{+1.0}_{-0}$ Vac.
- 4. Operation check Confirm that the hold-down circuit operates (the raster diss apears) by adding 22.75 $^{+0}_{-0.05}$ Vdc between TP85 and ground.
- 5. Receive the dot signal.
- 6. Short IC601 pins (3) and (4).
- 7. Input of 120 $^{+1.0}_{-0}$ Vac.
- 8. Error operation check. Confirm that, applying $139\pm0.5Vdc$ to $\pm B$ voltage (135V Line), the hold-down circuit does not operate when changing the channel.
- * Use a digital multimeter whose input impedance is over 100 M Ω when confirming the voltage of TP85.

CHECK AFTER IC601 REPLACEMENT

- 1. Supply 130 $^{+2.0}_{-0}$ Vac to with variable auto-transformer.
- Receive the dot signal.
 PICTURE VR.....MIN
- BRIGHT VR MIN
- Confirm that the +B voltage (135V Line) is less than
- 5. If step 4 is not satisfied, replace IC601 in A board and repeat above steps.



SECTION 3 CIRCUIT ADJUSTMENT

3-1. SAFETY RELATED ADJUSTMENTS

R524 ADJUSTMENT (HOLD DOWN)

When replacing the following components (marked with on the schematic diagram), perform the adjustment as

R521, R522, R523, R524, R530, R534, C307, C524, D502, D512, T503, IC301

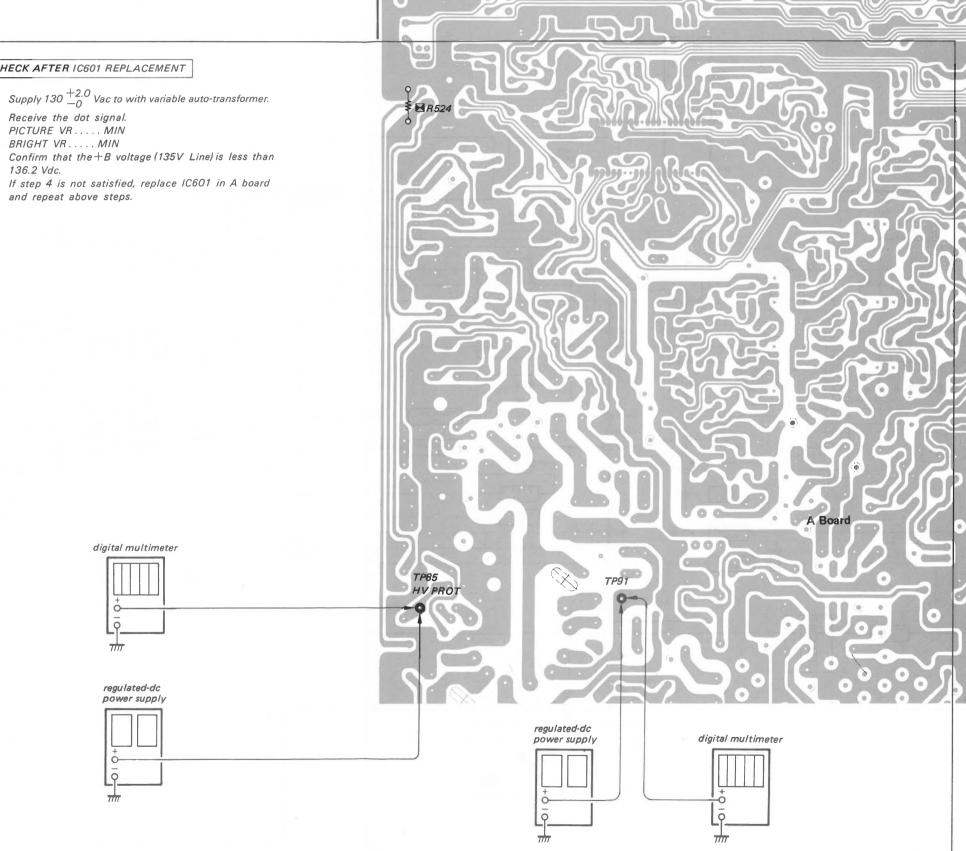
- 1. Receive the dot signal PICTURE VR MIN BRIGHT VR MIN
- 2. +B voltage check Confirm that the +B voltage (135V Line) is less than 136.2 Vdc during input of 130 $^{+2.0}_{-0}$ Vac.
- 3. Protector voltage check Confirm that a voltage of $20.0^{+1.3}_{-1.7}$ Vdc appears between TP85 and ground during input of $120^{+1.0}_{-0}$ Vac.
- 4. Operation check Confirm that the hold-down circuit operates (the raster diss apears) by adding 22.75 $^{+0}_{-0.05}$ Vdc between TP85 and ground.
- 5. Receive the dot signal.
- 6. Short IC601 pins (3) and (4).
- 7. Input of 120 $^{+1.0}_{-0}$ Vac
- 8. Error operation check.

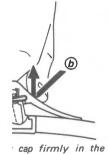
Confirm that, applying 139±0.5Vdc to +B voltage (135V Line), the hold-down circuit does not operate when changing the channel.

* Use a digital multimeter whose input impedance is over 100 M Ω when confirming the voltage of TP85.



- Supply 130 $^{+2.0}_{-0}$ Vac to with variable auto-transformer.
- BRIGHT VR MIN
- 5. If step 4 is not satisfied, replace IC601 in A board



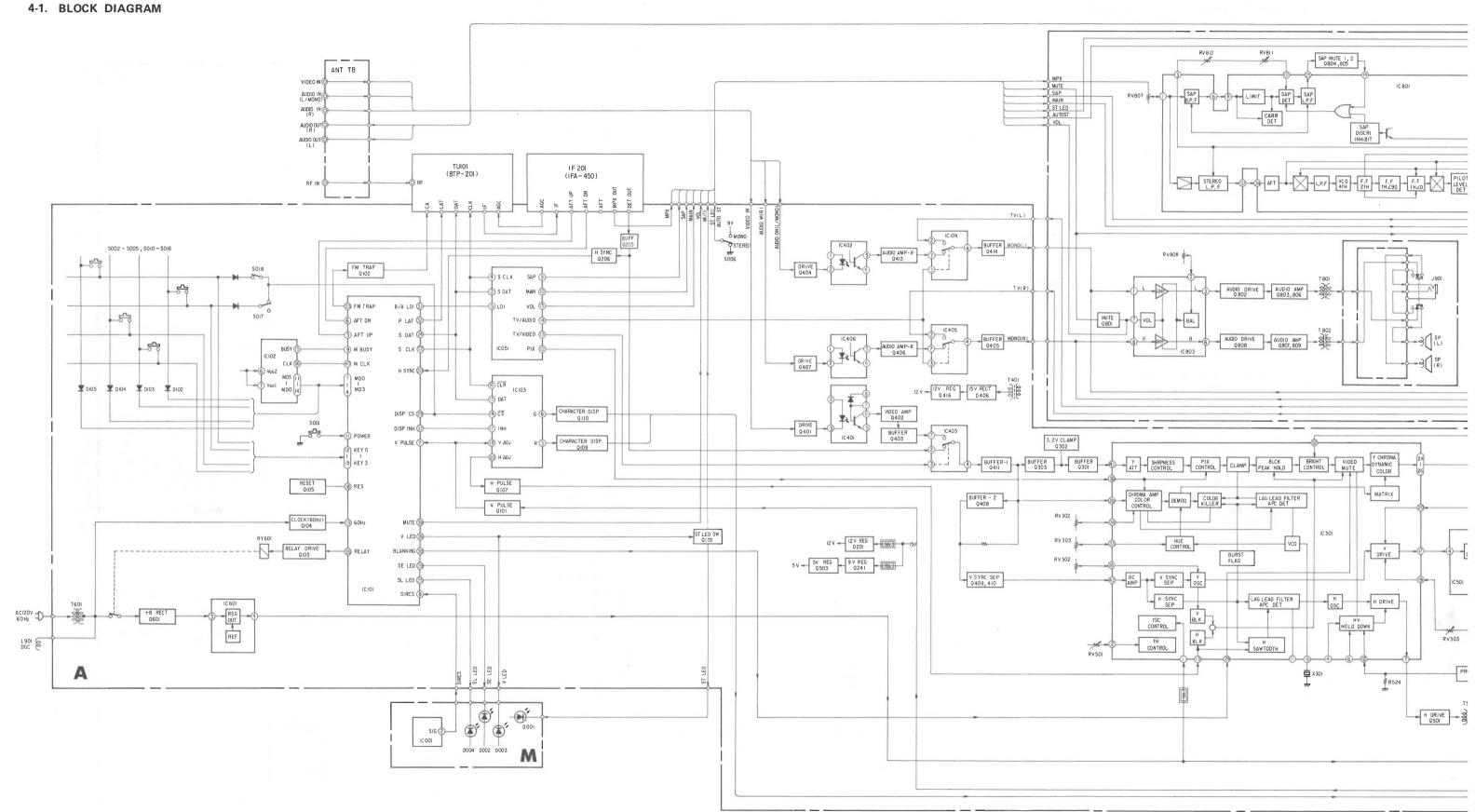


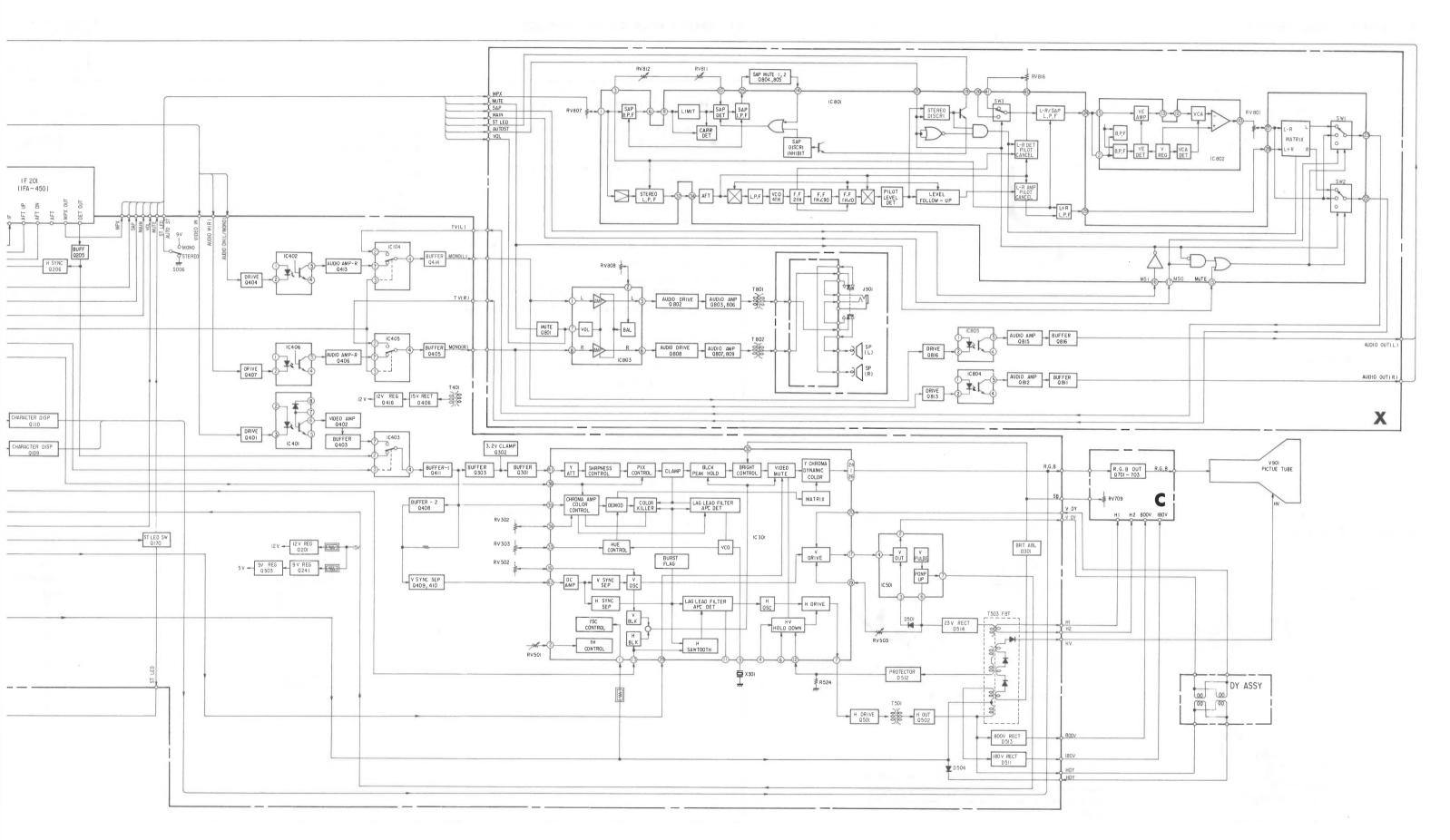
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KV-1380R RM-731 KV-1380R RM-731

SECTION 4 DIAGRAM





SECTION 5 **EXPLODED VIEWS**

NOTE:

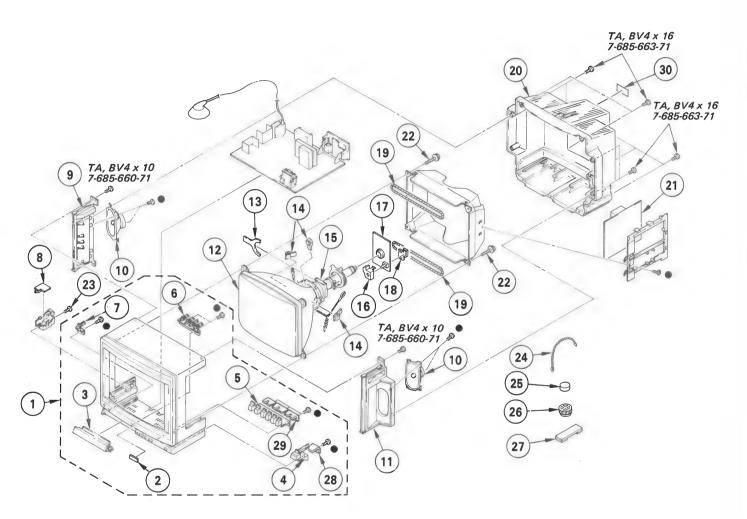
- · Items with no part number and no description are not stocked because they
- are seldom required for routine service.

 The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

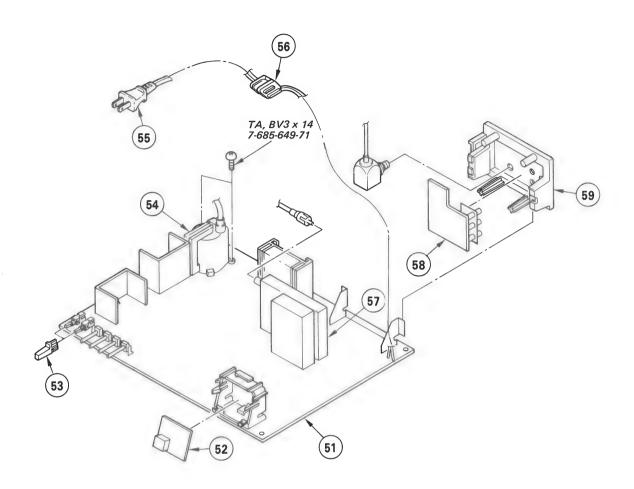
5-1. PICTURE TUBE

●: TA, BV3 x 12 7-685-648-71



No.	Part No.	<u>Description</u> Re	emark	No.	Part No.	Description	Remark
1 2 3 4 5 6 7 8 9 10	X-4379-906-1 4-378-208-01 X-4379-902-1 4-379-910-01 4-379-901-01 4-379-902-01 *1-617-77-11 X-4379-903-1 1-503-605-11 X-4379-904-1	BEZEL ASSY 2,3,4,5,6,7, EMBLEM, SONY DOOR ASSY, CONTROL BUTTON, POWER BUTTON, UP/DOWN BUTTON, MULTI BUTTON, MTS Z BOARD PANEL (LEFT) ASSY, SPEAKER SPEAKER PANEL (RIGHT) ASSY, SPEAKER CRT (A34JBU10X)	- i	15 16 17 18	↑.1-451-234-12 *4-374-912-01 *A-1330-601-A *4-374-913-01 Å.1-426-146-31 4-379-917-01 *A-1386-027-A 4-365-808-00 3-703-083-00 4-308-870-00 1-452-032-00 1-452-094-00 X-4309-608-0 *4-379-925-01	DEFLECTION YOKE (SY-125A) COVER (MAIN), CV VOL C BOARD, COMPLETE COVER (REAR LID), CV VOL COIL, DEMAGNETIZATION COVER, REAR X BOARD, COMPLETE SCREW (5), TAPPING + BV 3X25 CLIP, LEAD WIRE MAGNET, DISK; 10MM Ø MAGNET, ROTATABLE DISK; 15MM Ø PERMALLOY ASSY, CONVERGENCE	

5-2. CHASSIS



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
52 * 53 54 A.	1-617-796-11 4-379-901-01	BUTTON, SW TRANSFORMER ASSY, FLYBACK		57 58	*1-463-603-11 *1-618-661-21	HOLDER, AC CORD TUNER, ET (BTP-201) U BOARD TERMINAL BOARD ASSY, ANTI	ENNA

The components identified by shading and mark <u>A</u> are critical for safety. Replace only with part number specified.

SECTION 6 ELECTRICAL PARTS LIST



NOTE:

The components identified by shading and mark \underline{A} are critical for safety. Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS • MF : ער, PF : אוער

The components identified by
 \mathbb{I} in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Select the resistance value according to SAFETY RELATED ADJUST-MENT.

RESISTORS
• All resistors are in ohms

COILS
• MMH : mH, UH : µH

• F : nonflammable

Ref.No. Part No. *A-1296-121-A A BOARD, COMPLETE *************************** 3-701-833-01 4-302-428-00 HEAD, WASHER, TAPPING SCREW HEAD, WASHER, TAPPING SCREW HEAD, WASHER, TAPPING SCREW HOLDER, IC 4-365-216-00 SPACER, MICA CONNECTOR A1 *1-564-444-11 A2 *1-564-442-11 A3 *1-508-765-00 A4 *1-508-765-00 A5 *1-564-353-00 PLUG, CONNECTOR (2.5MM) 8P PLUG (M) A5 *1-564-353-00 PLUG, CONNECTOR (2.5MM) 2P A6 *1-508-766-00 A7 *1-508-766-00 AP PLUG (M) A8 *1-506-348-XX AP PLUG (L) A9 *1-564-442-11 PLUG, CONNECTOR (2.5MM) 6P A10 *1-564-442-11 PLUG, CONNECTOR (2.5MM) 6P PLUG, CONNECTOR (2.5MM) 6P				Remark	Ref.No.	Part No.	Description			Remark
*A-1296-121-A	A BOARD, COM	BOARD, COMPLETE *************** EAD, WASHER, TAPPING SCREW				1-102-106-00 1-102-963-00 1-102-112-00	CERAMIC CERAMIC	100PF 33PF 330PF	10% 5% 10%	50V 50V 50V
3-701-833-01 4-302-428-00 *4-363-404-00	HEAD, WASHER HEAD, WASHER HOLDER, IC	R, TAPPING S R, TAPPING S	CREW CREW		C132 C133	1-123-308-00 1-123-332-00	ELECT ELECT	220MF 47MF	20% 20%	10V 16V
4-365-216-00 CON	SPACER, MICA	1			C134 C135 C136	1-123-318-00 1-123-310-00 1-119-160-00	ELECT	33MF 470MF 470MF	20% 20%	16V 10V 10V
A1 *1-564-444-11 A2 *1-564-442-11 A3 *1-508-765-00	PLUG, CONNEC	CTOR (2.5MM) CTOR (2.5MM)	8P 6P		C201 C202 	1-123-333-00 1-123-318-00 4-354-556-00		100MF 33MF ; C202	20% 20%	16V 16V
A4 *1-508-786-00 A5 *1-564-353-00	2P PLUG (M) PLUG, CONNEC	CTOR (2.5MM)	2P		C210 C211 C217	1-101-003-00 1-101-003-00 1-123-321-00	CERAMIC CERAMIC ELECT	0.0047MF 0.0047MF 220MF	20%	50V 50V 16V
A6 *1-508-766-00 A7 *1-508-786-00 A8 *1-506-348-XX	4P PLUG (M) 2P PLUG (M) 3P PLUG (L)				C230	1-123-332-00	ELECT	47MF	20%	16V 50V
A9 *1-564-442-11 A10 *1-564-442-11	PLUG, CONNEC	TOR (2.5MM) TOR (2.5MM)	6P 6P		C251 C241 C257	1-123-300-00 1-123-332-00 1-102-121-00	ELECT CERAMIC	47MF 0.0022MF	20% 10%	16V 50V
DY1 *1-564-038-00 R524 *1-506-371-00	CONNECTOR PL 2P PLUG (L)	.UG, DY (MIN	I) 6P		C302 C302	1-108-794-91 1-123-332-00	ELECT	0.0015MF 47MF	5% 20%	50V 16V
CAP	PACITOR				C303 C304 C305	1-123-323-00 1-123-330-00 1-123-381-00	ELECT ELECT ELECT	470MF 22MF 2.2MF	20% 20% 20%	16V 25V 50V
C051 1-123-307-00 C052 1-123-333-00 C053 1-101-003-00	ELECT ELECT CERAMIC	100MF 100MF 0.0047MF	20% 20%	10V 16V 50V	C306 C307	1-101-004-00 1-123-381-00	CERAMIC ELECT	0.01MF 2.2MF	20%	50V 50V
C054 1-123-308-00 C101 1-123-330-00	ELECT ELECT	220MF 22MF	20% 20%	10V 25V	C308 C309 C310	1-101-884-00 1-136-169-00 1-102-038-00	CERAMIC FILM CERAMIC	56PF 0.22MF 0.001MF	10% 5%	50V 50V 500V
C102 1-102-121-00 C103 1-123-324-00 C104 1-123-356-00	CERAMIC ELECT ELECT	0.0022MF 1000MF 10MF	10% 20% 20%	50V 16V 50V	C313 C314	1-102-106-00 1-101-004-00		100PF 0.01MF	10%	50V 50V
C106 1-123-381-00 C107 1-101-880-00	ELECT CERAMIC	2.2MF 47PF	20% 10%	50V 50V	C315 C317 C318	1-123-323-00 1-102-858-00 1-102-858-00		470MF 10PF 10PF	20% 0.5PF 0.5PF	16V 50V 50V
C108 1-101-880-00 C109 1-101-006-21 C110 1-123-323-00	CERAMIC CERAMIC ELECT	47PF 0.047MF 470MF	10% 20%	50V 50V 16V	C319 C320	1-102-106-00 1-123-318-00	CERAMIC ELECT	100PF 33MF	10% 20%	50V 16V
C111 1-102-983-00 C112 1-102-982-91	CERAMIC CERAMIC	220PF 180PF	10% 10%	50V 50V	C321 C322 C323	1-123-369-00 1-123-318-00 1-102-822-00	ELECT ELECT CERAMIC	4.7MF 33MF 390PF	20% 20% 5%	50V 16V 50V
C113 1-102-982-91 C114 1-102-983-00 C115 1-101-003-00	CERAMIC CERAMIC CERAMIC	180PF 220PF 0.0047MF	10% 10%	50V 50V 50V	C325	1-123-356-00 1-102-983-00	ELECT CERAMIC	10MF 220PF	20% 10%	50V 50V
C116 1-101-880-00 C117 1-123-308-00	CERAMIC ELECT	47 PF 220MF	10% 20%	50V 10V	C401 C402 C403	1-123-322-00 1-101-361-00 1-123-318-00	ELECT CERAMIC ELECT	330MF 150PF 33MF	20% 5% 20%	16V 50V 16V
		10MF 0.001MF	20%	50V 50V	C403 C404 C406	1-123-318-00 1-102-937-00 1-123-332-00		4 PF 4 7MF	0.25PF 20%	
C120 1-101-006-21 C121 1-101-880-00 C122 1-101-884-00	CERAMIC CERAMIC CERAMIC	0.047MF 47PF 56PF	10% 10%	50V 50V 50V	C407	1-123-380-00 1-123-324-00	ELECT ELECT	1MF 1000MF	20%	50V 16V
C123 1-102-074-00 C124 1-123-311-00	CERAMIC ELECT	0.001MF 1000MF	10% 20%	50V 10V	C409 <u>A</u> C410 C411	1-161-953-51 1-123-321-00 1-123-380-00	CERAMIC ELECT ELECT	0.0047MF 220MF 1MF	20% 20% 20%	400V 16V 50V
C125	CERAMIC CERAMIC ELECT	180PF 180PF 4.7MF	10% 10% 20%	50V 50V 50V	C412 C413 C414	1-108-597-00 1-162-318-11 1-123-356-00	MYLAR CERAMIC ELECT	0.056MF 0.001MF 10MF	5% 10% 20%	50V 500V 50V



Ref.No.	Part No.	Description			Remark	Ref.No.	Part No.	Description			Remark
C415 C416	1-123-369-00 1-123-334-00 4-354-557-00	ELECT ELECT CAP (DIA. 10	4.7MF 220MF	20% 20%	50V 25V	C542 C543 C544	1-108-835-00 1-123-345-00 1-124-117-00	MYLAR ELECT ELECT	0.0068MF 100MF 680MF	10% 20% 10%	50V 35V 25V
C418 C419	1-123-356-00 1-123-333-00	ELECT ELECT	10MF 100MF	20% 20%	50V 16V	C545 C551	1-123-332-00 1-102-212-00	ELECT CERAMIC	47MF 820PF	20% 10%	16V 500V
C420 C421 C422	1-101-821-00 1-102-953-00 1-123-330-00	CERAMIC CERAMIC ELECT	0.0022MF 18PF 22MF	5% 20%	500V 50V 25V	C552 C553 C557	1-123-335-00 1-102-114-00 1-101-810-00	ELECT CERAMIC CERAMIC	330MF 470PF 100PF	20% 10% 5%	25V 50V 500V
C423 C424	1-123-333-00 1-123-356-00	ELECT ELECT	100MF 10MF	20% 20%	25V 50V		1-130-682-51 1-124-959-11	FILM ELECT	0.22MF 330MF	20% 20%	125V 200V
C425 C426 C430	1-123-381-00 1-123-318-00 1-102-106-00	ELECT ELECT CERAMIC	2.2MF 33MF 100PF	20% 20% 10%	50V 16V 50V	C603 C608 C614	1-123-933-00 1-161-830-00 1-123-948-00	ELECT CERAMIC ELECT	10MF 0.0047MF 22MF	20%	160V 500V 250V
C431 C432	1-162-318-11 1-123-332-00	CERAMIC ELECT	0.001MF 47MF	10% 20%	500V 16V	C615 C616	1-161-830-00 1-123-307-00	CERAMIC ELECT	0.0047MF 100MF	20%	500V 10V
C433 C435	1-123-380-00 1-123-356-00	ELECT ELECT	1MF 10MF	20% 20%	50V 50V		DIC	DE			
C439	1-123-369-00	ELECT	4.7MF	20%	50V 50V	D005	8-719-911-19	DIODE 1SS119)		
C440 C441	1-123-356-00 1-123-332-00	ELECT ELECT	10MF 47MF	20% 20%	50V	D101	8-719-101-04	DIODE RD33E-			
		ELECT	47115	20%	16V	D102 D103	8-719-911-19 8-719-911-19	DIODE 1SS119 DIODE 1SS119			
C442 C443	1-102-106-00 1-123-356-00	CERAMIC ELECT	100PF 10MF	10% 20%	50V 50V	D104	8-719-911-19	DIODE 1SS119	1		
C444	1-123-356-00	ELECT	10MF	20%	50V 50V	D105	8-719-911-19	DIODE 1SS119)		
C445 C446	1-123-332-00 1-123-356-00	ELECT ELECT	47MF 10MF	20% 20%	16V 50V	D106 D107	8-719-102-71 8-719-101-38	DIODE RD5.6E			
	1-123-330-00	ELECT	TOME	20%	500	D107	8-719-911-19	DIODE RD3.6E			
C447 C501	1-123-380-00 1-123-333-00	ELECT ELECT	1MF 100MF	20% 20%	50V 16V	D109	8-719-911-19	DIODE 1SS119			
C503	1-123-333-00	ELECT	22MF	20%	25V	D201	8-719-102-99	DIODE RD13E-	N1		
C 505 C 506	1-106-184-00 1-123-332-00	MYLAR	0.0033MF	10%	100V	D241	8-719-102-90	DIODE RD10E-	N2		
	1-123-332-00	ELECT	47MF	20%	16V	D301 D302	8-719-200-02 8-719-102-71	DIODE 10E2 DIODE RD5.6E	-N2		
C507 C508	1-123-356-00 1-102-112-00	ELECT CERAMIC	10MF 330PF	20% 10%	50V 50V	D303	8-719-911-19	DIODE 1SS119)		
C509	1-102-030-00	CERAMIC	330PF	10%	500V	D304	8-719-911-19	DIODE 1SS119)		
C510 C511	1-124-283-00 1-161-267-00	ELECT	4.7MF 47PF	20%	167	D402	8-719-102-99	DIODE RD13E-			
6311	1-101-207-00	CERAMIC	47 PF	5%	50V	D405 D406	8-719-911-19 8-719-924-06	DIODE 1SS119 DIODE ERC 24 -			
C512 C515	1-102-125-00 1-102-212-00	CERAMIC	0.0047MF	10%	50V	D407	8-719-911-19	DIODE 1SS119			,
C518	1-123-384-00	CERAMIC ELECT	820 PF 10MF	10% 20%	500V 100V	D501	8-719-911-55	DIODE UOSG			
C519	1-123-024-00	ELECT	33MF	100	160V	D502	8-719-156-07	DIODE RD5.6E			
			330PF	10%	2KV	D503 D504	8-719-102-72 8-719-911-55	DIODE RD5.6E	-N3		
C521	1-106-198-00	MYLAR FILM	0.012MF 0.0055MF	10% 3%	100V 1.4KV	D505	8-719-911-19	DIODE 1SS119			
C523	1-123-932-00	ELECT	4.7MF	20%	160V	D508	8-719-901-93	DIODE V19E			
C524	1-123-356-00 1-123-356-00	ELECT	10MF 10MF	20% 20%	50V 50V	D511	8-719-924-06	DIODE ERC24-	0 6 S		
			TOM	20%	301		8-719-300-65				
C527 C528	1-136-173-00 1-136-136-00		0.47MF 0.24MF	5% 5%	50V 200V	D514 A	4.8-719-901-93	DIODE V19E			
C529	1-102-223-00	CERAMIC	0.0047MF	10%	2KV	D515	8-719-901-93				
C530 C531	1-123-346-00 1-101-821-00	ELECT CERAMIC	220MF . 0.0022MF	20%	35V 500V	D601 A	8-719-503-06 8-719-924-06				
					2001	D603	8-719-924-06	DIODE ERC24- DIODE ERC24-			
C533 C540	1-123-933-00 1-102-983-00	ELECT CERAMIC	10MF 220PF	20% 10%	160V 50V	D604	8-719-911-55	DIODE U05G			
C541	1-102-983-00		330PF	10%	500V	D605	8-719-200-02	DIODE 10E2			

The components identified by shading and mark <u>∧</u> are critical for safety. Replace only with part number specified.



Ref.No. Part No.	Description	Remark	Ref.No.	Part No.	Description		Remark
D606 8-719-102-68 D607 8-719-911-55	DIODE RD5.1E-N2 DIODE UO5G SE		Q102 Q104 Q105 Q106	8-729-178-54 8-729-117-54	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	C2785 A1175 C2551	
F601 A.1-532-509-11 1-533-190-11 F602 A.1-532-740-11 1-533-189-11	FUSE, GLASS TUBE 6.3A/125V CLIP, FUSE; F601 FUSE, GLASS TUBE 1A/125V HOLDER, FUSE; F602		Q109 Q110 Q170 Q201	8-729-117-54 8-729-117-54 8-729-178-54	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	A1175 A1175 C2785	
IC			Q205		TRANSISTOR 25		
IC051 8-759-104-05 IC101 8-759-927-51 IC102 8-759-105-59 IC103 8-759-909-50 IC301 8-752-019-30	IC UPD6325C IC MB88505-417N IC UPD6251C IC CX7958 IC CX20193		Q206 Q241 Q301 Q302 Q303	8-729-288-02 8-729-117-54 8-729-178-54	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	D880 A1175 C2785	
IC401 8-719-800-43 IC402 8-719-800-83 IC403 8-752-006-10 IC404 8-752-006-10 IC405 8-752-006-10	Description DIODE RD5.1E-N2 DIODE U05G SE FUSE, GLASS TUBE 6.3A/125V CLIP, FUSE; F601 FUSE, GLASS TUBE 1A/125V HOLDER, FUSE; F602 IC UPD6325C IC MB88505-417N IC UPD6251C IC CX7958 IC CX20193 DIODE TLP551 DIODE TLP551 DIODE TLP531-AUDIO IC CX20061 IC CX20061 DIODE TLP531-AUDIO		Q401 Q402 Q403 Q404 Q405	8-729-178-54 8-729-178-54 8-729-178-54	TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25	C 2785 C 2785 C 2785	
IC406 8-719-800-83 IC501 8-759-801-98 IC601 <u>↑</u> 8-749-901-35	DIODE TLP531-AUDIO IC LA7830 IC STR30135		Q406 Q407 Q408 Q409	8-729-178-54 8-729-117-54	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	C2785 A1175	
<u>IF</u>	BLOCK		Q410	8-729-178-54	TRANSISTOR 2S	C2785	
IF201 1-464-597-11 COI	IF BLOCK (IFA-450)		Q411 Q413 Q414	8-729-178-54	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	C2785	
L 051 1-408-438-31			Q416 L 0501	8-729-177-43,	TRANSISTOR 2S	D774	
L101 1-408-430-31 L102 1-408-419-00 L103 1-404-538-11 L104 1-407-717-00	MICRO INDUCTOR 1UH MICRO INDUCTOR 68UH COIL MICRO INDUCTOR 1MMH		0502 0503	8-729-802-50 8-729-177-43	TRANSISTOR 2S TRANSISTOR 2S	D1649-CA	
L105 1-408-407-00	MICRO INDUCTOR 6.8UH			RES	ISTOR		
L106 1-408-407-00 L107 1-408-438-31 L108 1-408-432-31 L109 1-408-408-00	MICRO INDUCTOR 6.8UH MICRO INDUCTOR 4.7UH MICRO INDUCTOR 1.5UH MICRO INDUCTOR 8.2UH		R051 R053 R054 R056 R057	1-247-849-00 1-247-725-11 1-247-725-11 1-249-429-11 1-247-831-00	CARBON CARBON CARBON CARBON CARBON	5.6K 5% 10K 5% 10K 5% 10K 5% 1K 5%	1/6W 1/4W 1/4W 1/6W 1/6W
L 201	IC CX20061 IC CX20061 IC CX20061 IC LA7830 IC STR30135 BLOCK IF BLOCK (IFA-450) IL MICRO INDUCTOR 4.7UH MICRO INDUCTOR 1UH MICRO INDUCTOR 68UH COIL MICRO INDUCTOR 6.8UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 4.7UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 8.2UH MICRO INDUCTOR 8.2UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 6.8UH MICRO INDUCTOR 8.2UH MICRO INDUCTOR 8.3UH MICRO INDUCTOR 33UH COIL, CHOKE		R058 R059 R060 R061 R062	1-247-831-00 1-247-713-11 1-247-713-11 1-247-831-00 1-247-831-00	CARBON CARBON CARBON CARBON	1K 5% 1K 5% 1K 5% 1K 5% 1K 5%	1/6W 1/4W 1/4W 1/6W 1/6W
L601 A.1-408-225-11	MICRO INDUCTOR 33UH COIL, CHOKE MICRO INDUCTOR 33UH MICRO INDUCTOR 3.3UH MICRO INDUCTOR 3.3UH		 R101 R102 R103 R104 R105	1-247-713-11 1-215-923-00 1-247-849-00 1-247-831-00 1-247-831-00	CARBON METAL OXIDE CARBON CARBON CARBON	1K 5% 10K 5% 5.6K 5% 1K 5% 1K 5%	1/4W 3W F 1/6W 1/6W 1/6W
L603 1-408-438-31	MICRO INDUCTOR 4.7UH		 R106	1-249-419-11	CARBON	1.5K 5%	1/6W
TRA	ANSISTOR		R107 R109	1-247-135-00 1-247-851-00	CARBON CARBON	1.5K .5% 6.8K 5%	1/4W 1/6W
Q101 8-729-178-54	TRANSISTOR 2SC2785		R110	1-249-434-11	CARBON	27K 5%	1/6W

The components identified by shading and mark A are critical for safety. Replace only with part number specified.



Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
R111 R113 R114 R115 R116	1-247-256-00 1-247-717-11 1-247-717-11 1-247-717-11 1-247-717-11	CARBON CARBON CARBON CARBON CARBON	4.7K 2.2K 2.2K 2.2K 2.2K 2.2K	5% 5% 5% 5% 5%	1/2W 1/4W 1/4W 1/4W 1/4W		 R175 R176 R177 R201 R202	1-247-713-11 1-247-717-11 1-247-713-11 1-215-883-11 1-247-704-11	CARBON CARBON CARBON METAL OXIDE CARBON	1K 2.2K 1K 33 220	5% 5% 5% 5%	1/4W 1/4W 1/4W 2W 1/4W	F
R117 R118 R119 R120 R121	1-247-713-11 1-249-460-11 1-249-421-11 1-249-421-11 1-247-717-11	CARBON CARBON CARBON CARBON CARBON	1K 15K 2.2K 2.2K 2.2K	5% 5% 5% 5%	1/4W 1/4W 1/6W 1/6W 1/4W		R203 R204 R205 R208 R210	1-249-443-11 1-216-377-11 1-214-765-00 1-215-457-00 1-249-433-11	CARBON METAL OXIDE METAL METAL CARBON	0.47 4.7 33K 33K 22K	5% 5% 1% 1% 5%	1/4W 2W 1/4W 1/6W 1/6W	F F
R122 R123 R124 R125 R126	1-247-717-11 1-249-421-11 1-247-717-11 1-247-717-11 1-249-421-11	CARBON CARBON CARBON CARBON CARBON	2.2K 2.2K 2.2K 2.2K 2.2K	5% 5% 5% 5% 5%	1/4W 1/6W 1/4W 1/4W 1/6W		R211 R220 R221 R222 R223	1-249-433-11 1-247-713-11 1-247-831-00 1-247-706-11 1-249-440-11	CARBON CARBON CARBON CARBON CARBON	22K 1K 1K 330 82K	5% 5% 5% 5%	1/6W 1/4W 1/6W 1/4W 1/6W	
R127 R128 R129 R131 R132	1-247-717-11 1-249-421-11 1-249-421-11 1-246-507-00 1-247-125-00	CARBON CARBON CARBON CARBON CARBON	2.2K 2.2K 2.2K 27K 560	5% 5% 5% 5% 5%	1/4W 1/6W 1/6W 1/4W 1/4W		R224 R226 R227 R228 R241	1-247-891-00 1-249-429-11 1-249-421-11 1-249-405-11 1-216-422-11	CARBON CARBON CARBON CARBON METAL OXIDE	330K 10K 2.2K 100 18	5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1W	F
R133 R134 R135 R137 R138	1-247-125-00 1-247-135-00 1-247-706-11 1-247-135-00 1-247-831-00	CARBON CARBON CARBON CARBON CARBON	560 1.5K 330 1.5K 1K	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/6W		R242 R251 R301 R303 R304	1-246-463-00 1-247-700-11 1-214-769-00 1-247-829-00 1-247-819-00	CARBON CARBON METAL CARBON CARBON	390 100 47K 820 330	5% 5% 1% 5% 5%	1/4W 1/4W 1/4W 1/6W 1/6W	
R139 R140 R141 R142 R143	1-249-421-11 1-247-717-11 1-247-167-00 1-247-831-00 1-249-421-11	CARBON CARBON CARBON CARBON CARBON	2.2K 2.2K 33K 1K 2.2K	5% 5% 5% 5% 5%	1/6W 1/4W 1/4W 1/6W 1/6W		R305 R306 R307 R308 R310	1-247-819-00 1-247-819-00 1-247-875-00 1-246-507-00 1-247-171-00	CARBON CARBON CARBON CARBON CARBON	330 330 68K 27K 47K	5% 5% 5% 5%	1/6W 1/6W 1/6W 1/4W 1/4W	
R144 R150 R151 R153 R154	1-249-421-11 1-247-725-11 1-244-921-00 1-249-429-11 1-249-429-11	CARBON CARBON CARBON CARBON CARBON	2.2K 10K 10OK 10K 10K	5% 5% 5% 5% 5%	1/6W 1/4W 1/2W 1/6W 1/6W		R311 R312 R313 R314 R315	1-247-831-00 1-247-725-11 1-247-821-00 1-247-873-00 1-247-859-00	CARBON CARBON CARBON CARBON CARBON	1K 10K 390 56K 15K	5% 5% 5% 5% 5%	1/6W 1/4W 1/6W 1/6W 1/6W	
R155 R156 R157 R158 R159	1-249-429-11 1-249-421-11 1-249-421-11 1-249-421-11 1-247-717-11	CARBON CARBON CARBON CARBON CARBON	10K 2.2K 2.2K 2.2K 2.2K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/4W		R316 R317 R318 R319 R320	1-247-867-00 1-249-432-11 1-249-421-11 1-247-831-00 1-247-713-11	CARBON CARBON CARBON CARBON CARBON	33K 18K 2.2K 1K 1K	5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/4W	
R160 R161 R162 R163 R164	1-247-125-00 1-249-441-11 1-249-433-11 1-249-429-11 1-249-433-11	CARBON CARBON CARBON CARBON CARBON	560 100K 22K 10K 22K	5% 5% 5% 5% 5%	1/4W 1/6W 1/6W 1/6W 1/6W		R321 R322 R324 R325 R327	1-247-815-00 1-247-837-00 1-249-425-11 1-247-849-00 1-249-441-11	CARBON CARBON CARBON CARBON CARBON	220 1.8K 4.7K 5.6K 100K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/6W	
R165 R166 R167 R170 R171	1-247-171-00 1-247-171-00 1-247-163-00 1-247-713-11 1-247-151-00	CARBON CARBON CARBON CARBON CARBON	47K 47K 22K 1K 6.8K	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W		R328 R401 R402 R403 R404	1-247-713-11 1-247-805-00 1-247-851-00 1-247-833-00 1-249-405-11	CARBON CARBON CARBON CARBON CARBON	1K 82 6.8K 1.2K 100	5% 5% 5% 5%	1/4W 1/6W 1/6W 1/6W 1/6W	
R172 R173 R174	1-249-460-11 1-247-713-11 1-247-717-11	CARBON CARBON CARBON	15K 1K 2.2K	5% 5% 5%	1/4W 1/4W 1/4W		R405 R406 R407	1-247-859-00 1-249-405-11 1-249-429-11	CARBON CARBON CARBON	15K 100 10K	5% 5% 5%	1/6W 1/6W 1/6W	F



Ref.No. Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
R408 1-247-845-00 R409 1-249-405-11 R410 1-247-823-00 R411 1-247-843-00 R412 1-249-399-11	CARBON CARBON CARBON CARBON CARBON	100 470 3.3K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/6W	F	R505 R506 R507 R508 R510	1-249-459-11 1-247-719-11 1-247-843-00 1-247-706-11 1-247-151-00	CARBON CARBON CARBON CARBON CARBON	12K 3.3K 3.3K 330 6.8K	5% 5% 5% 5% 5%	1/4W 1/4W 1/6W 1/4W 1/4W	F
R413 1-249-419-11 R414 1-247-859-00 R416 1-247-837-00 R417 1-247-831-00 R418 1-249-405-11	CARBON CARBON CARBON	15K 1.8K 1K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/6W		R511 R512 R513 R515 R516	1-247-843-00 1-247-831-00 1-249-460-11 1-249-460-11 1-216-434-11	CARBON CARBON CARBON CARBON METAL OXIDE	3.3K 1K 15K 15K 1.8K	5% 5% 5% 5% 5%	1/6W 1/6W 1/4W 1/4W 1/4W	F
R419 1-247-837-00 R420 1-215-869-11 R421 1-249-421-11 R422 1-249-441-11 R423 1-247-101-00	CARBON METAL OXIDE CARBON CARBON CARBON	1K 2.2K 100K	5% 5% 5% 5% 5%	1/6W 1W 1/6W 1/6W 1/4W	F	R519 R520 ⚠	1-215-892-11 .1-216-434-51 1-247-706-11 .1-249-447-51 .1-249-383-51	METAL OXIDE METAL OXIDE CARBON CARBON CARBON	1K 1.8K 330 1 1.5	5% 5% 5% 5% 5%	2W 1W 1/4W 1/4W 1/6W	F F
R424 1-247-831-00 R425 1-247-831-00 R426 1-247-857-00 R427 1-247-827-00 R428 1-202-730-00	CARBON CARBON CARBON CARBON SOLID	1K 12K 680	5% 5% 5% 5% 10%	1/6W 1/6W 1/6W 1/6W 1/2W		R522 R523 R524 <u>↑</u> R525 R526	1-215-854-51 1-214-747-00 1-216-460-11 1-246-525-00	METAL METAL CARBON METAL OXIDE CARBON	15K 5.6K 3.9K 150K	5%	1/4W 1/4W 1/4W 2W 1/4W	F
R429 1-247-843-00 R430 1-249-429-11 R431 1-247-831-00 R432 1-247-859-00 R433 1-247-831-00	CARBON CARBON CARBON CARBON CARBON	10K 1K 15K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/6W		R527 R528 R529 R530 R531	1-214-915-00 1-247-149-00 1-249-423-11 1-247-823-00 1-244-929-00	METAL CARBON CARBON CARBON CARBON	120K 5.6K 3.3K 470 220K	1% 5% 5% 5% 5%	1/2W 1/4W 1/6W 1/6W 1/2W	F
R434 1-249-421-11 R435 1-247-713-11 R436 1-247-119-00 R438 1-249-441-11 R440 1-249-429-11	CARBON CARBON CARBON CARBON CARBON	1K 330 100K	5% 5% 5% 5% 5%	1/6W 1/4W 1/4W 1/6W 1/6W	F	R533 A R534 R535 R537 R538	.1-249-383-51 1-244-919-00 1-247-713-11 1-216-426-11 1-247-125-00	CARBON CARBON CARBON METAL OXIDE CARBON	1.5 82K 1K 82 560	5% 5% 5% 5% 5%	1/6W 1/2W 1/4W 1W 1/4W	F
R441 1-249-429-11 R442 1-247-713-11 R443 1-247-713-11 R444 1-247-831-00 R445 1-249-429-11	CARBON CARBON CARBON CARBON CARBON	1K 1K 1K	5% 5% 5% 5% 5%	1/6W 1/4W 1/4W 1/6W 1/6W		R539 R541 R542 R542 R543 R544	1-249-425-11 1-247-805-00 1-247-817-00 1-216-350-11 1-247-133-00	CARBON CARBON CARBON METAL OXIDE CARBON	4.7K 82 270 1.2 1.2K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1W 1/4W	F
R446 1-249-429-11 R447 1-249-405-11 R448 1-247-831-00 R449 A.1-202-727-91 R450 1-249-414-11	CARBON CARBON CARBON SOL ID CARBON	100 1K 4.7M	5% 5% 5% 10% 5%	1/6W 1/6W 1/6W 1/2W 1/6W		R602 🛕	1-247-845-00 1-216-373-11 1-202-719-91 1-205-707-12 1-216-373-51	CARBON METAL OXIDE SOLID CEMENTED METAL OXIDE	3.9K 2.2 1M 2.2 2.2	5% 5% 10% 5%	1/6W 2W 1/2W 10W 2W	F
R451 1-247-837-00 R452 1-247-849-00 R453 1-247-857-00 R454 1-247-831-00 R455 1-247-119-00	CARBON CARBON CARBON CARBON CARBON	5.6K 12K 1K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/4W	F	R607 A	1-215-899-11 1-247-895-00 .1-205-700-11 .1-247-696-51 1-215-897-11	METAL OXIDE CARBON CEMENTED CARBON METAL OXIDE	15K 470K 200 47 6.8K	5% 5% 5% 5%	2W 1/6W 20W 1/4W 2W	F F
R456 1-249-441-11 R457 1-249-419-11 R458 1-247-859-00 R459 1-247-831-00 R460 1-247-725-11		1.5K 15K 1K	5% 5% 5% 5% 5%	1/6W 1/6W 1/6W 1/6W 1/4W		 R612 R613 R614 R615	1-216-431-11 1-207-474-00 1-205-744-11 1-215-895-11	WIREWOUND CEMENTED METAL OXIDE	560 8.2 4.7K 3.3K	5% 10% 5% 5%	1W 1/2W 20W 2W	F
R501 1-214-788-00 R502 1-216-460-11 R503 1-216-460-11			1% 5% 5%	1/4W 2W 2W	F F		1-237-210-11	RES, VAR, CAR RES, VAR, CAR	BON (W			

The components identified by shading and mark $\underline{\Lambda}$ are critical for safety. Replace only with part number specified.

The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Select the resistance value according to SAFETY RELATED ADJUST-MENT.









Ref.No. Part No.	Description	Remark	Ref.No	. Part No.	Description				Remark
RV303 1-237-210-11 RV304 1-230-631-11 RV401 1-230-628-11	RES, VAR, CARBON (WITH SW) 20KX3 RES, ADJ, CARBON 22K RES, ADJ, CARBON 2.2K	3		*1-617-796-11	M BOARD				
RV402 1-230-271-00 RV403 1-230-271-00	RES, ADJ, CARBON 4.7K RES, ADJ, CARBON 4.7K			*4-370-578-01	HOLDER, LED				
RV501 1-228-728-00	RES, ADJ, CERAMIC CARBON 100K] 	DIC	DDE				
RV502 1-230-633-41 RV503 1-230-629-41 RV504 1-230-630-11 S018 1-237-210-11	RES, ADJ, CARBON 47K RES, ADJ, CARBON 3.3K RES, ADJ, CARBON 10K RES, VAR, CARBON (WITH SW) 20KX3	}	D001 D002 D003 D004	8-719-311-23 8-719-114-34	DIODE SEL112 DIODE SEL112 DIODE SY432E DIODE SEL112	NP-N			
REI	<u>AY</u>		į	IC					
RY6011-515-346-13	RELAY		IC001	8-741-131-70	IC BX1317				
SW	ITCH			CON	INECTOR				
S001 <u>A</u> .1-554-303-11 S002 1-554-303-21	SWITCH, KEY BOARD SWITCH, KEY BOARD		M1	*1-564-456-41	PLUG, CONNEC	TOR (2.	.5MM)	8P	
5003 1-554-303-21	SWITCH, KEY BOARD		*****	*****	*****	*****	*****	*****	*****
\$004 1-554-303-21 \$005 1-554-303-21	SWITCH, KEY BOARD			*A-1330-601-A	C BOARD, COM				
5010 1-554-303-21				1-526-819-11	SOCKET, CRT				
S011 1-554-303-21 S012 1-554-303-21	SWITCH, KEY BOARD			CON	INECTOR				
	SWITCH, KEY BOARD		 C1	*1-506-371-00	2P PLUG (L)				
\$015 1-554-303-21 \$016 1-554-303-21			C2 C3 C4	*1-508-786-00 *1-564-442-11 *1-508-765-00	PLUG, CONNEC	TOR (2.	.5MM)	6P	
	SWITCH, PUSH (1 KEY) SWITCH, LEVER			CAP	ACITOR				
-	NSFORMER		C705	1-162-116-00 1-129-714-00		680PF 0.01MF		10% 10%	2KV 630V
T301 1-404-488-00 T401 1-421-749-11 T501 1-437-090-00	TRANSFORMER, INSULATING		ļ !	<u>C01</u>	L				
T503 A.1-439-314-22	HDT TRANSFORMER ASSY, FLYBACK TRANSFORMER, LINE FILTER		L702	1-408-420-00 1-408-420-00	MICRO INDUCT	OR 82UH	1		
THE	RMISTOR		L703 L704	1-408-420-00 1-408-424-00					
TH301 1-800-945-00 THP601 1-800-686-51	THERMISTOR S-10K THERMISTOR (POSITIVE)		 	TRA	NSISTOR				
TUN			Q701 Q702	8-729-326-11 8-729-326-11					
TU101A.1-463-603-11	TUNER, ET (BTP-201)		Q703	8-729-326-11	TRANSISTOR 2	SC2611			
	'STAL		İ	RES	ISTOR				
	CRYSTAL, OSC		R701 R703 R704 R705 R706	1-249-421-11 1-247-821-00 1-247-841-00 1-202-824-00 1-215-899-11	CARBON CARBON CARBON SOLID METAL OXIDE	2.2K 390 2.7K 3.3K 15K	5% 5% 5%	1/6W 1/6W 1/6W 1/2W 2W	F
			 R707 R708 R709	1-247-833-00 1-247-823-00 1-247-827-00	CARBON CARBON CARBON	1.2K 470 680	5% 5% 5%	1/6W 1/6W 1/6W	

The components identified by shading and mark <u>A</u> are critical for safety. Replace only with part number specified.





Ref.No. Part No.	Description		Remark	lRef.No.	Part No.	Description			Remark
R710 1-247-841-00 R711 1-202-824-00 R712 1-215-899-11 R713 1-247-833-00 R714 1-247-823-00	CARBON 2.7K SOLID 3.3K METAL OXIDE 15K CARBON 1.2K CARBON 470	5% 1/6W 1/2W 5% 2W 5% 1/6W 5% 1/6W	F	C823 C824 C825 C826 C827	1-123-356-00 1-102-125-00 1-123-356-00 1-123-323-00 1-123-356-00	ELECT CERAMIC ELECT ELECT ELECT	10MF 0.0047MF 10MF 470MF 10MF	20% 10% 20% 20% 20%	50V 50V 50V 16V 50V
R715 1-247-827-00 R716 1-247-841-00 R717 1-202-824-00 R718 1-215-899-11 R719 1-202-842-51	CARBON 680 CARBON 2.7K SOLID 3.3K METAL OXIDE 15K SOLID 220K	5% 1/6W 5% 1/6W 1/2W 5% 2W 1/2W	F	C828 C829 C830 C831 C832	1-108-622-91 1-123-356-00 1-123-356-00 1-124-645-11 1-106-180-00	MYLAR ELECT ELECT ELECT MYLAR	0.0047MF 10MF 10MF 10MF 0.0022MF	10% 20% 20% 20% 5%	100V 50V 50V 16V 50V
R720 1-202-719-00 R721 1-216-348-00 R722 1-202-848-00 R723 1-202-838-00	SOLID 1M METAL OXIDE 0.82 SOLID 680K SOLID 100K	10% 1/2W 5% 1W 1/2W 1/2W	F	C833 C834 C835 C837 C838	1-123-356-00 1-123-321-00 1-123-381-00 1-123-381-00 1-123-318-00	ELECT ELECT ELECT ELECT ELECT	10MF 220MF 2.2MF 2.2MF 33MF	20% 20% 20% 20% 20%	50V 16V 50V 50V 16V
RV701 1-228-723-00 RV702 1-228-722-00 RV703 1-228-723-00 RV704 1-228-723-00 RV705 1-228-723-00	RES, ADJ, CERAMIC CA RES, ADJ, CERAMIC CA	ARBON 3.3K ARBON 4.7K ARBON 3.3K		C839 C841 C843 C844 C845	1-123-324-00 1-102-244-00 1-123-381-00 1-123-933-00 1-123-381-00	ELECT CERAMIC ELECT ELECT ELECT	1000MF 220PF 2.2MF 10MF 2.2MF	20% 10% 20% 20% 20%	16V 500V 100V 160V 100V
RV706 1-230-641-11 RV707 1-230-641-11 RV708 1-230-798-11 RV709 1-230-409-11	RES, ADJ, METAL GLAZ RES, ADJ, METAL GLAZ RES, ADJ, METAL GLAZ RES, ADJ, CARBON 22k	ZE 2.2M ZE 2.2M ZE 90M		C846 C848 C849 C850 C851	1-102-244-00 1-108-622-91 1-123-933-00 1-108-622-91 1-123-369-00	CERAMIC MYLAR ELECT MYLAR ELECT	220 PF 0.0047MF 10MF 0.0047MF 4.7MF	10% 10% 20% 10% 20%	500V 100V 160V 100V 25V
*A-1386-027-A	X BOARD, COMPLETE ****************	*****	*****	C852 C853 C854 C855 C856	1-123-332-00 1-123-330-00 1-123-356-00 1-123-356-00 1-123-356-00	ELECT ELECT ELECT ELECT ELECT	47MF 22MF 10MF 22MF 10MF	20% 20% 20% 20% 20%	16V 25V 50V 25V 50V
C801 1-131-368-00 C802 1-123-382-00 C803 1-131-371-00 C804 1-123-381-00 C805 1-123-330-00	TANTALUM 3.3MF ELECT 3.3MF TANTALUM 10MF ELECT 2.2MF ELECT 22MF	10% 20% 10% 20% 20%	16V 50V 16V 50V 25V	C857 C858 C860 C861 C862	1-123-332-00 1-123-369-00 1-123-357-00 1-123-357-00 1-123-318-00	ELECT ELECT ELECT ELECT ELECT	47MF 4.7MF 22MF 22MF 33MF	20% 20% 20% 20% 20%	16V 25V 50V 50V 16V
C806 1-123-380-00 C807 1-123-356-00 C808 1-108-603-00 C809 1-108-587-00 C810 1-123-369-00	ELECT 1MF ELECT 10MF MYLAR 0.1MF MYLAR 0.022MF ELECT 4,7MF	20% 20% 5%	50V 50V 50V 50V 50V	C870 C875 C899	1-123-369-00 1-123-369-00 1-123-323-00	ELECT ELECT ELECT DE	4.7MF 4.7MF 470MF	20% 20% 20%	25V 25V 16V
C811 1-108-630-91 C812 1-106-196-00 C813 1-123-356-00 C814 1-123-356-00 C815 1-123-369-00	MYLAR 0.022MF MYLAR 0.01MF ELECT 10MF ELECT 10MF		100V 100V 50V 50V 50V	D801 D802 D831	8-719-911-19 8-719-911-19 8-719-102-90 <u>IC</u>	DIODE 1SS119 DIODE 1SS119 DIODE RD10E-			
C816 1-123-356-00 C817 1-123-356-00 C818 1-123-369-00 C819 1-130-309-00 C820 1-123-356-00	ELECT 10MF ELECT 10MF ELECT 4,7MF FILM 0,033MF ELECT 10MF	20% 20% 20% 5% 20%	50V 50V 50V 100V 50V	IC802 IC803 IC804	8-752-011-20 8-752-030-26 8-759-900-70 8-719-800-83 8-719-800-83	DIODE TLP531			
C821 1-130-279-00 C822 1-123-380-00	FILM 0.0018N ELECT 1MF	1F 5% 20%	100V 50V	 L801	1-408-242-00		OR 10MMH		

The components identified by shading and mark A are critical for safety. Replace only with part number specified.



Ref.No	. Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
	TRA	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2 HEAT SINK, C TRANSISTOR 2 TRANSISTOR 2 HEAT SINK, C TRANSISTOR 2 HEAT SINK, C TRANSISTOR 2 HEAT SINK, C TRANSISTOR 2					R835	1-249-429-11	CARBON	10K	5%	1/6W	
							R836	1-249-429-11	CARBON	10K	5%	1/6W	
Q801	8-729-178-54	TRANSISTOR 2	SC2785				R837	1-247-831-00	CARBON	1K	5%	1/6W	
Q802	8-729-309-08	TRANSISTOR 2	SC1890 <i>F</i>	4			R838	1-247-831-00	CARBON	1K	5%	1/6W	
Q803	8-729-336-11	TRANSISTOR 2	SB861-0)2			R839	1-249-405-11	CARBON	100	5%	1/6W	F
	*4-378-234-01	HEAT SINK, C	LIP; Q8	303									
Q804	8-729-117-54	TRANSISTOR 2	SA1175				R840	1-247-883-00	CARBON	150K	5%	1/6W	
							R841	1-247-099-00	CARBON	47	5%	1/4W	F
Q805	8-729-178-54	TRANSISTOR 2	SC2785				R842	1-247-831-00	CARBON	1K	5%	1/6W	
Q806	8-729-323-82	TRANSISTOR 2	SD1138-	02-C			R843	1-247-831-00	CARBON	1K	5%	1/6W	
0007	*4-378-234-01	HEAT SINK, C	LIP; QE	306			R844	1-247-851-00	CARBON	6.8K	5%	1/6W	
Q807	8-729-323-82	TRANSISTOR 2	201138-	02-0			1 0045	1 047 007 00					
	*4-378-234-01	HEAT SINK, C	LIP; Q	307			R845	1-247-827-00	CARBON	680	5%	1/6W	_
0808	8-729-309-08	TDANSISTOD 3	CC 1 000 A				R846	1-247-733-11	CARBON	33	5%	1/2W	F
0809	8-729-336-11	TRANSISIUR Z	SD 109UF	1			R847	1-247-841-00	CARBON	2.7K		1/6W	_
QOOD	*4-378-234-01	UEAT CINE C	2000T-C	200			R848	1-247-733-11	CARBON	33	5%	1/2W	F
Q810	8-729-288-02	TDANSISTOD 2	choon	009			R849	1-247-099-00	CARBON	47	5%	1/4W	F
0811	8-729-178-54	TDANSISTOR 2	SC 27 0 E				1 0050	1 247 051 00	CARRON	6 OV	E e/	1 /611	
QUII	0-729-170-34	TRANSISTOR Z	362763				R850 R851	1-247-851-00 1-247-883-00	CARBON CARBON	6.8K 150K	5%	1/6W	
Q812	8-729-178-54	TRANSISTOR 2	SC 27.85				R852	1-247-827-00	CARBON	680	5% 5%	1/6W	
0813	8-729-178-54	TRANSISTOR 2	SC2785				R853	1-247-733-11	CARBON	33	5%	1/6W 1/2W	F
Q814	8-729-178-54	TRANSISTOR 2	SC2785				R854	1-247-841-00	CARBON	2.7K	5%	1/6W	Г
Q815	8-729-178-54	TRANSISTOR 2	SC2785				1 1004	1-247-041-00	CARDON	2./K	3 /6	1/0W	
0816	8-729-178-54	TRANSISTOR 2	SC2785				R855	1-246-507-00	CARBON	27K	5%	1/4W	
40-0	0 .23 2,0 0.	710710101 E	302,00				R856	1-249-434-11	CARBON	27K	5%	1/6W	
	RES	ISTOR					R857	1-247-733-11	CARBON	33	5%		F
	11110	101011					R858	1-249-414-11	CARBON	560	5%	1/6W	1
R802	1-215-487-00	METAL	560K	1%	1/6W		R859	1-247-883-00	CARBON	150K	5%	1/6W	
R803	1-215-449-00		15K	1%	1/6W		1		0,		- /-	-,	
R804	1-249-421-11	CARBON	2.2K		1/6W		R860	1-249-433-11	CARBON	22K	5%	1/6W	
R805	1-249-429-11	CARBON	10K	5%	1/6W		R861	1-247-843-00	CARBON	3.3K	5%	1/6W	
R806	1-247-819-00	CARBON	330	5%	1/6W		R862	1-247-843-00	CARBON	3.3K	5%	1/6W	
							R863	1-249-419-11	CARBON	1.5K	5%	1/6W	
R807	1-247-819-00	CARBON	330	5%	1/6W		R864	1-247-807-00	CARBON	100	5%	1/6W	
R808	1-247-849-00	CARBON	5.6K	5%	1/6W								
R809	1-249-435-11	CARBON	33K	5%	1/6W		R865	1-247-857-00	CARBON	12K	5%	1/6W	
R811	1-247-713-11	CARBON	1K	5%	1/4W		R866	1-247-833-00	CARBON	1.2K	5%	1/6W	
R813	1-247-713-11	CARBON	1K	5%	1/4W		R867	1-249-435-11	CARBON	33K	5%	1/6W	
0.014	1 247 712 11	CADBON	11/	F ~	1 / 411		R868	1-247-851-00	CARBON	6.8K	5%	1/6W	_
R814	1-247-713-11	CARBON	1K	5%	1/4W		R869	1-249-408-11	CARBON	180	5%	1/6W	F
R815 R816	1-247-831-00 1-249-441-11	CARBON	1K	5%	1/6W		1 0070	1 047 011 00	0.0000	1.50	F 0/	1 (6)	
R817	1-215-470-00	CARBON METAL	100K 110K	5% 1%	1/6W 1/6W		R870	1-247-811-00	CARBON	150	.5%	1/6W	
R818		METAL	110K	1%	1/6W		R871 R872	1-249-414-11 1-247-811-00	CARBON CARBON	560 150	5%	1/6W	
11010	1-213-470-00	IIIL IAL	1101	1 /6	1/0%		R872	1-247-137-00	CARBON	1.8K	5% 5%	1/6W 1/4W	
R819	1-247-706-11	CARBON	330	5%	1/4W		R874	1-247-137-00	CARBON	1.8K	5%	1/6W	
R820		CARBON	220	5%	1/4W		1	1-247-037-00	CARDON	1.01	3 %	1/ OM	
R821	1-247-704-11	CARBON	220	5%	1/4W		R875	1-247-173-00	CARBON	56K	5%	1/4W	
R822	1-249-414-11	CARBON	560	5%	1/6W		R876		CARBON	1K	5%	1/6W	
R823		METAL	2.4K		1/6W		R877	1-249-433-11	CARBON	22K	5%	1/6W	
					_,		R878	1-247-843-00	CARBON	3.3K	5%	1/6W	
R824	1-247-853-00	CARBON	8.2K	5%	1/6W			1-247-843-00		3.3K		1/6W	
R825	1-247-833-00	CARBON	1.2K	5%	1/6W		İ					-,	
R826	1-249-429-11	CARBON	10K	5%	1/6W		R880	1-249-419-11	CARBON	1.5K	5%	1/6W	
R827	1-249-421-11	CARBON	2.2K	5%	1/6W		R881	1-249-405-11	CARBON	100	5%	1/6W	
R828	1-247-721-11	CARBON	4.7K	5%	1/4W		R882	1-247-857-00	CARBON	12K	5%	1/6W	
							R883	1-247-833-00	CARBON	1.2K	5%	1/6W	
R829	1-249-425-11	CARBON	4.7K	5%	1/6W		R884	1-247-167-00	CARBON	33K	5%	1/4W	
R830	1-246-545-00	CARBON	1M	5%	1/4W								
R831	1-247-843-00	CARBON	3.3K	5%	1/6W		R885	1-247-851-00	CARBON	6.8K	5%	1/6W	
R833	1-215-886-11	METAL OXIDE	100	5%	2W	F	R886	1-249-408-11	CARBON	180	5%	1/6W	F
R834	1-247-815-00	CARBON	220	5%	1/6W								







SECTION 7 **REMOTE COMMANDER (RM-731)**

6

DI SE303AY

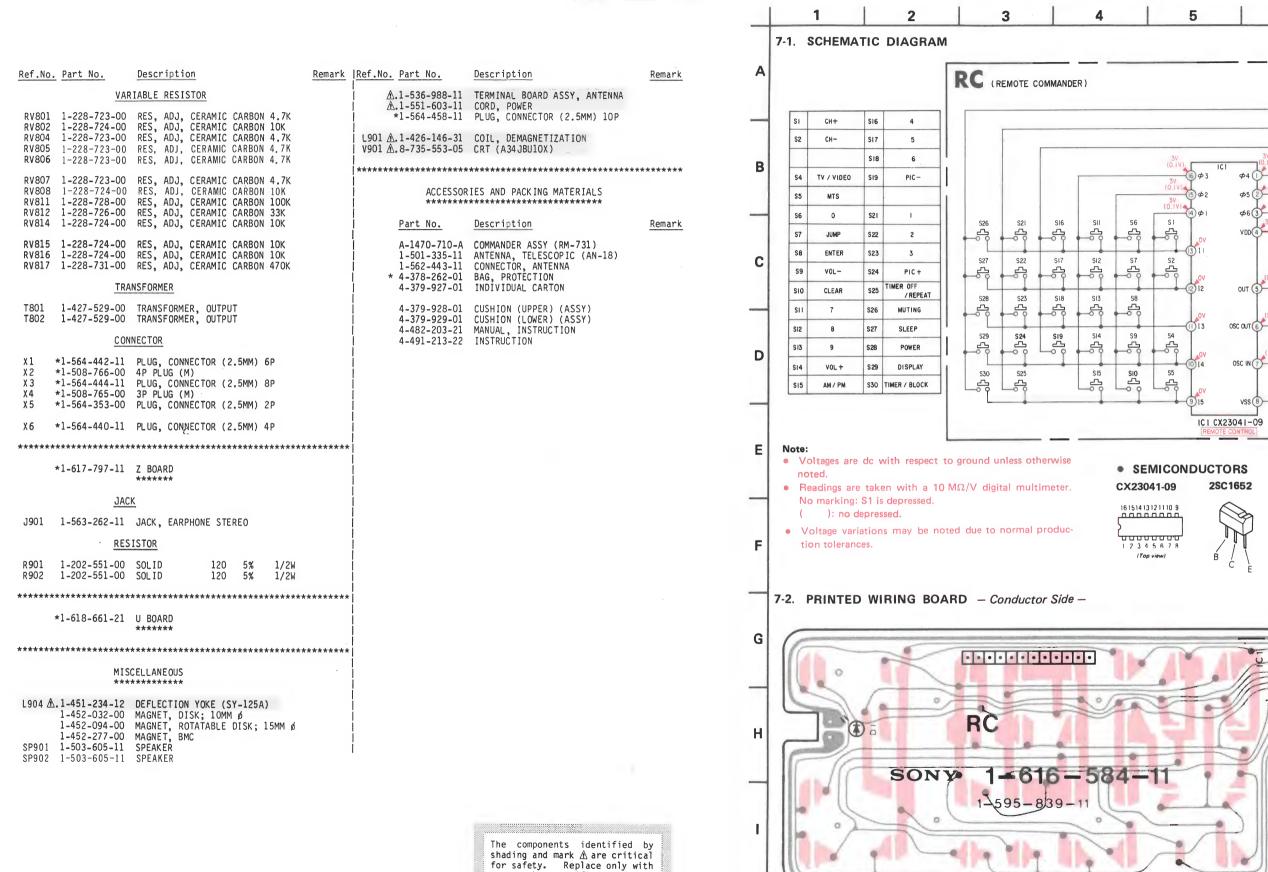
2501652

→ ÎÎ

SE303AY

SIZE "AA" (IEC DESIGNATION R6) 2PCS,3V

SLR-932A



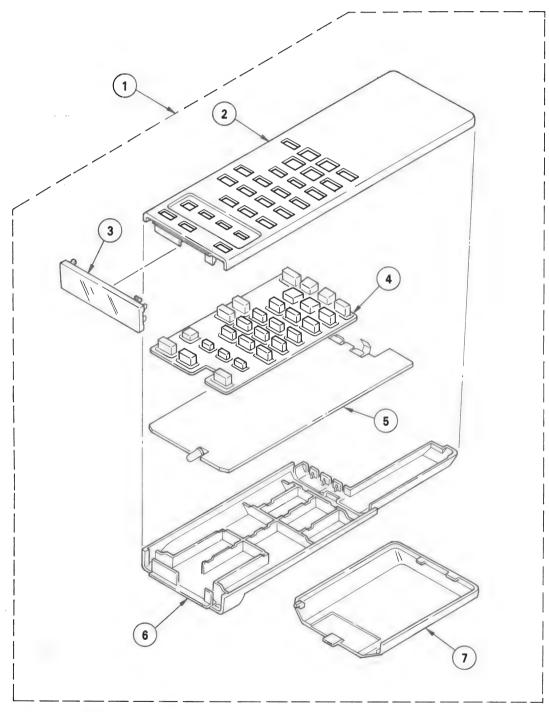
part number specified.

Remark

Rc

7-3. EXPLODED VIEW

- NOTE:
 Items with no part number and no description are not stocked because they are seldom required for routine service.
 The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



No.	Part No.	Description	Remark	No.	Part No.	Description
2	X-4376-911-1	COMMANDER ASSY (RM-731) CASE ASSY, UPPER PLATE, FROSTED		5 6	4-376-972-01 *1-616-584-11 4-373-824-11 4-373-821-11	CASE, LOWER

7-4. ELECTRICAL PARTS LIST

NOTE:

Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

CAPACITORS	RESISTORS	
• MF : µF, PF : µµF	All resistors are in ohi	ns

Ref.No	. Part No.	<u>Description</u> Remark
	*1-616-584-11	RC BOARD *******
	4-350-924-00 4-372-835-01	TERMINAL (B), BATTERY TERMINAL (A), BATTERY
	CAP	ACITOR
C1 C2	1-102-110-00 1-102-110-00	
	DIC	<u>DE</u>
D1	8-719-107-82	DIODE SE303AY
	IC	
IC1	8-759-920-81	IC CX23041-09
	TRA	NSISTOR
Q1	8-729-965-22	TRANSISTOR 2SC1652
	RES	ISTOR
R1 R2	1-247-809-00 1-247-767-00	
	CRY	STAL
X1	1-527-476-41	OSCILLATOR, CERAMIC

SONY TRINITRON® COLOR TV KV-1380R/RM-731

US Model

Chassis No. SCC-754D-A

P3 CHASSIS

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY SHADING AND MARK

ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

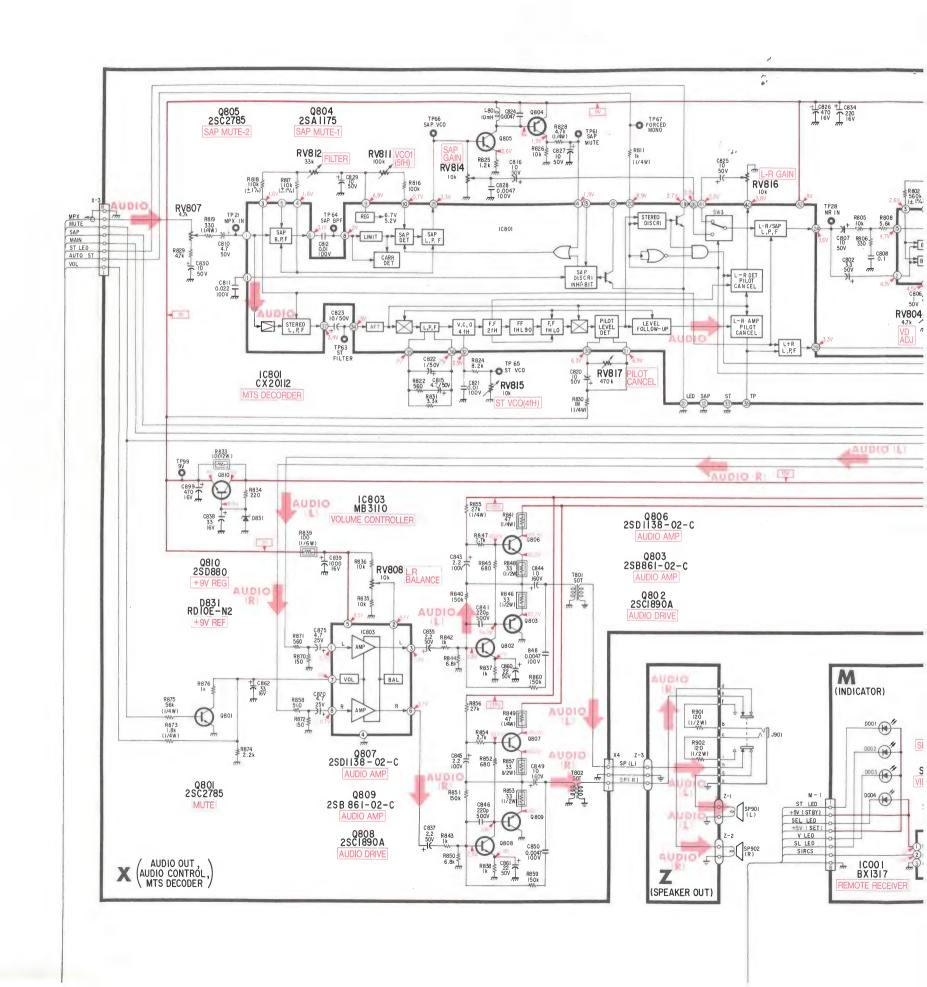
G Note:

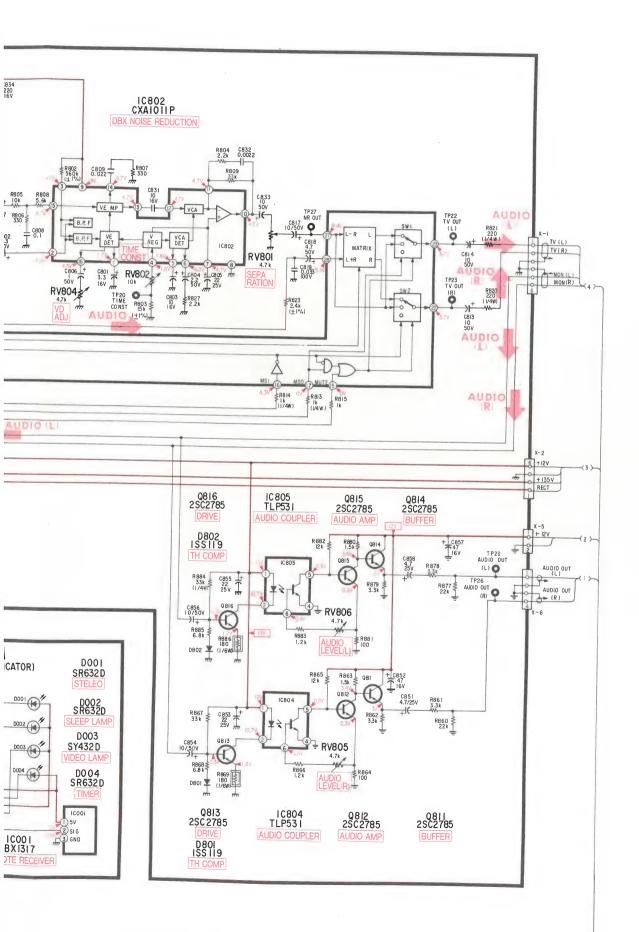
Н

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{6}$ W unless otherwise noted. k: 1000 Ω , M: 1000 k Ω
- monflammable resistor.
- △ : internal component.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R524 adjustment on page 10, 11.)
 When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (()	Adjustment ()
C307, C524, D502,	
D512, IC301, R521,	D504 "
R522, R523, R524,	R524 adjustment
R530, R534, T503	

SCHEMATIC DIAGRAM





(KV-1380R/RM-731)

Semiconductor Lead Layouts

BX1317



CXA1011P μPD6251C μPD6325C





CX20061

CX20112 CX20193 MB88505-417N



(Top view)



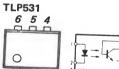
(Top view)

LA7830 (O O O GO O CEEE

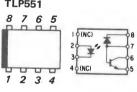
STR30135



1. COMMON 2. BASE 3. IN PUT (CASE) 4. OUT PUT 5. BLANK



TLP551



2SA1048-GR 2SA1115 2SC2458 2SC2603

2SC2611 2SC2688

2SD1649-CA

2SD773 2SD774

2SD788

2SD789



2SA1175 2SC2785





2SB861-02C 2SD1138-02-C 2SD1266 2SD1406-Y 2SD1585



2SC1890A





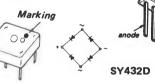
RD10E-N2 RD13E-N1 RD33E-B2 RD3.6E-L1 RD3.6E-L1 RD5.1E-N2 RD5.6E-BZ7 RD5.6E-N2 RD5.6E-N3



1SS119 1SS133 1SS148



S3WB60Z



SIB01-02 SIB01-04



U05G

V06C

V19C V19CS V19E

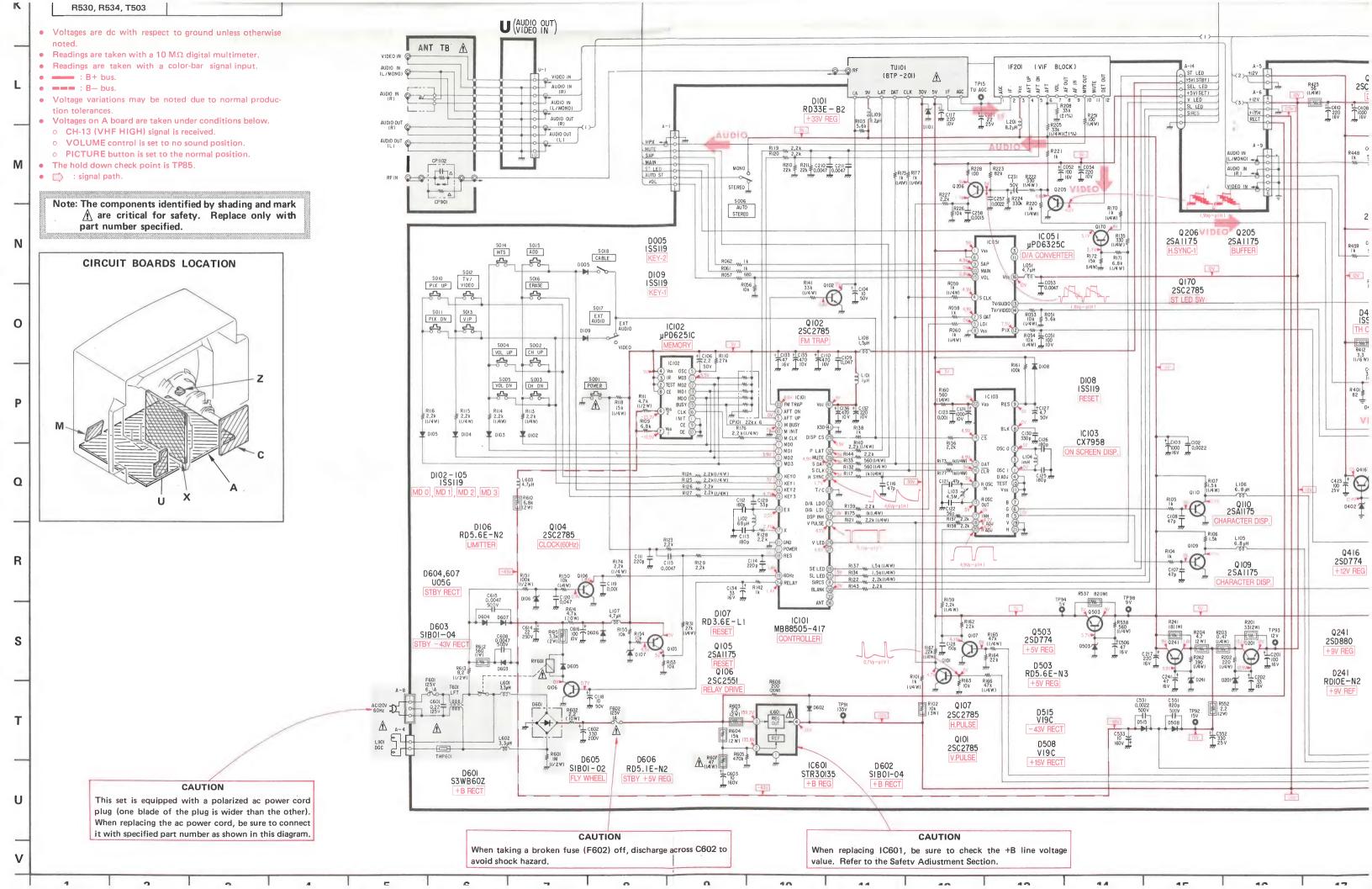
anode

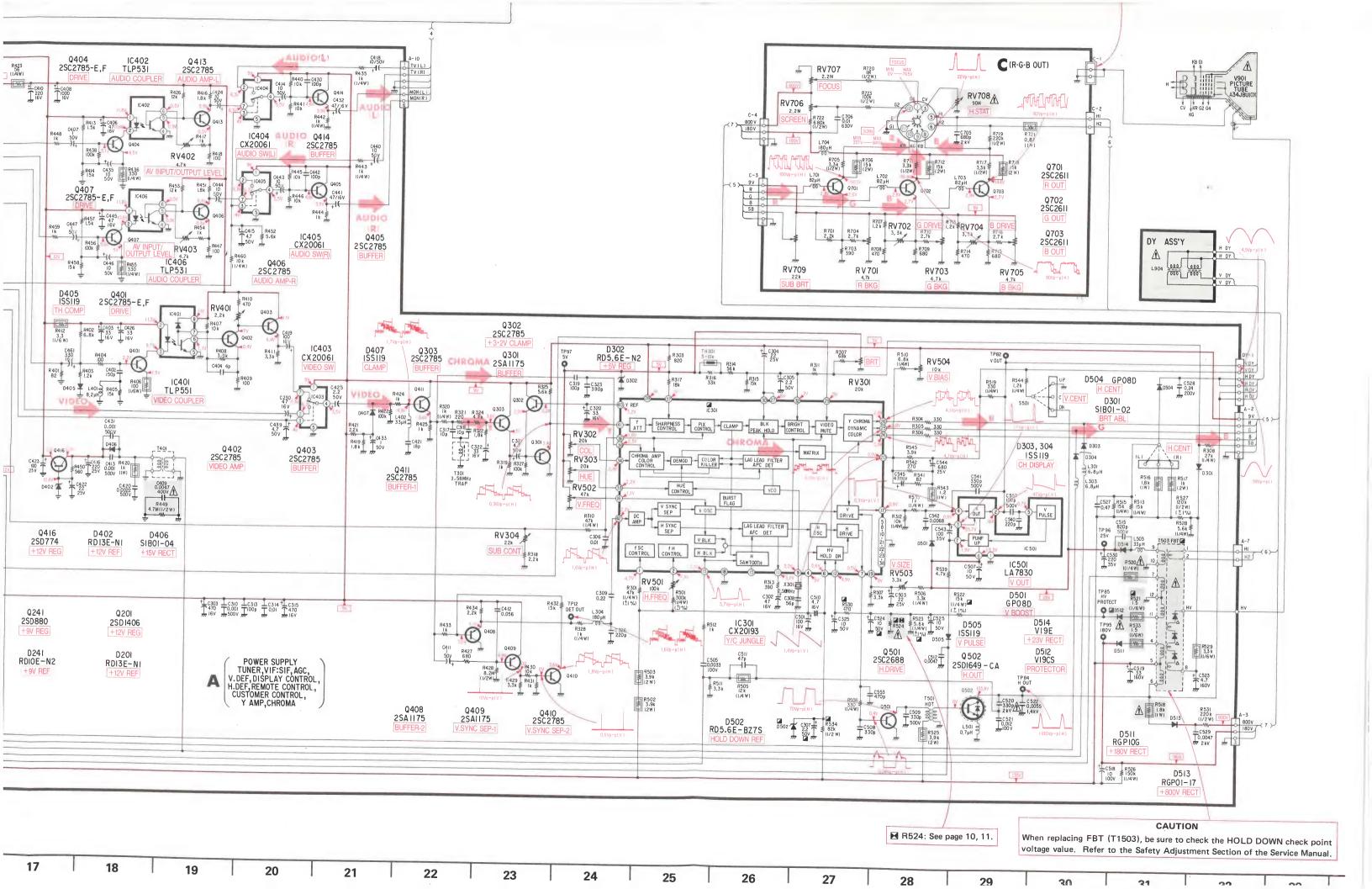
cathode

SR632D

CAUTION

Be sure to connect the connector C-1 for safety.





PRINTED WIRING BOARDS

Note: All mounting diagrams are viewed from conductor side.

- Conductor Side -

RF AGC ADJUSTMENT

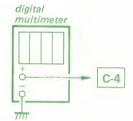
IF201 = F-10

- 1. Turn in an off-air signal.
- 2. Adjust AGC VR (AGC VR of IF201) so that snow noise and cross-modulation just disapper from the picture.

H. FREQUENCY

RV501 = C-5

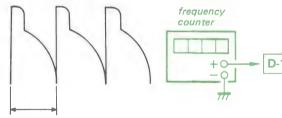
- V. CENT SW (S501) center position
- H. CENT center position
- V. SIZE (RV503) mechanical center
- 1. Feed in a monoscope signal.
- 2. Adjust RV501 so that voltage on pin (11) of IC301 is 3.2 ±0.1 V dc.



V. FREQUENCY

RV502 = C-2

- 1. No signal input,
- 2. Connect frequency counter across pin (2) of IC501 and ground.
- 3. Adjust RV502 for 55 ± 0.5 Hz on the frequency counter.



18.2 ±0.5 msec

V. SIZE

RV503 = F-3

- 1. Receive a strong off-air signal.
- 2. Set the V. SIZE (RV503) to obtain a suitable picture.

V. BIAS

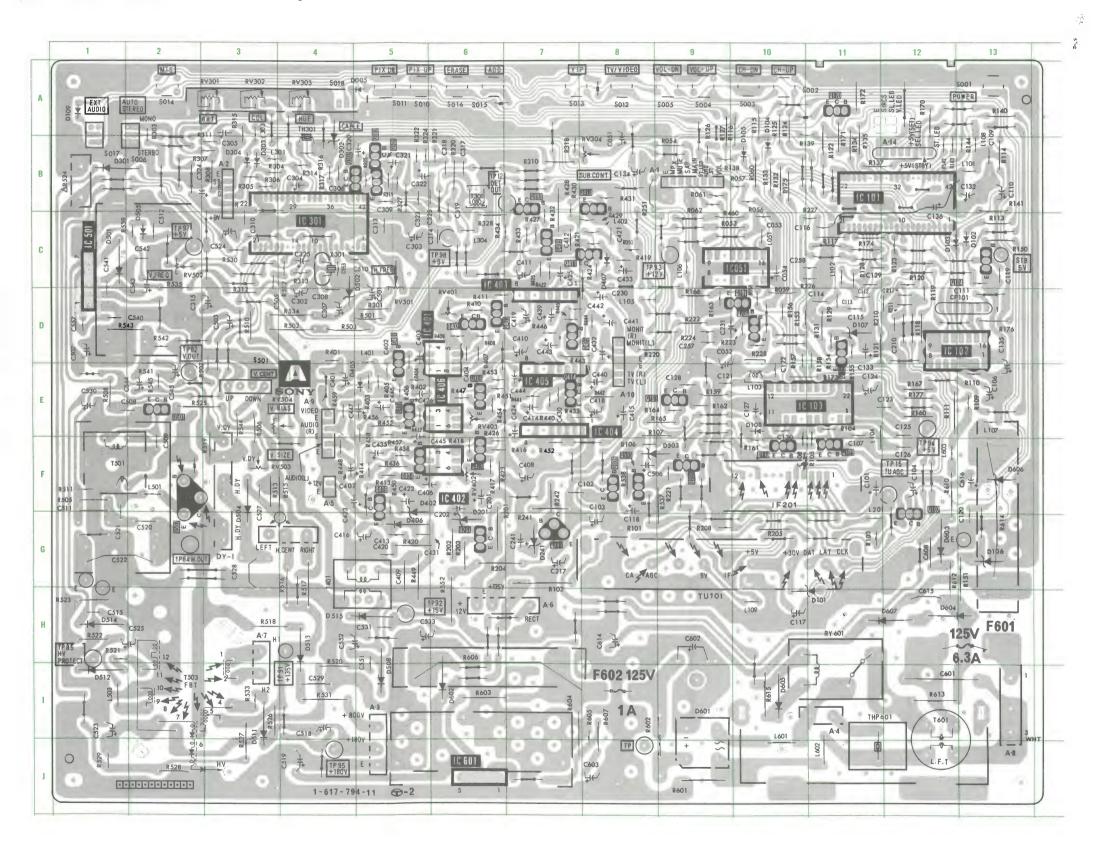
RV504 = E-4

- 1. Receive a cross-hatch pattern.
- 2. Set the PICTURE control for initial setting.
- 3. Connect the digital multimeter across DY connector (V. DY \bigcirc) and ground.
- 4. Adjust to 12.0 ±0.2 V dc with RV504 (V. BIAS).





POWER SUPPLY, TUNER, VIF, SIF, AGC, Y AMP, CHROMA, CUSTOMER CONTROL, V. DEF, DISPALY CONTROL, H. DEF, REMOTE CONTROL



SIGNAL SET UP

V MAIN (L+R) signal : 400 Hz, 247 mVrms (0.7 Vp-p) at

deviation). V CIID /I _Plainnal 100 H-

TP21 100% modulation (±25 kHz

SAP VCO

RV811 = B-6

- 1. Supply a 78.67 kHz, 0.42 Vp-p sine wave signal to TP21 (MPX IN) terminal.
- 2. Connect the pin (14) of IC801 and TP99. At this point, let the DC current voltage to pin (25) of

NOISE REDUCTION TIME CONSTANT

RV802 = A-3

1. No signal mode. 2. Adjust RV802 to obtain 837 ±15 mV, with connecting as the +pin of the digital multimeter to R803 and -pin



CONNECTOR

A1 A2 A3 A4 A5 A6 A7 A8 A9 A10

DY1 R524

C051 C052 C053 C054 C101 C102 C103 C104 C106 C107

C108 C109 C110 C111 C112 C113 C114 C115 C116 C117

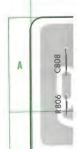
C118 C119 C120 C121 C122 C123 C124 C125 C126 C127

C128 C129 C130 C132 C133 C134 C135 C136 C201 C202

C210 C211 C217 C230 C231 C241 C257 C258 C302 C303

E-9 C-11 E-10 B-13 D-11 B-8 D-13 B-12 F-6 F-6

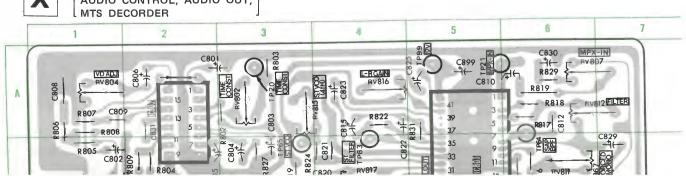
CAPACITOR



A	
H	
	_

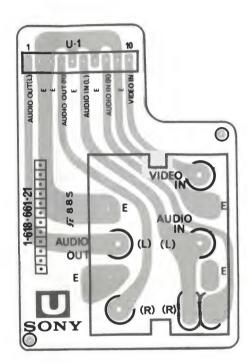
															1		
ONNE	CTOR	C304 C305	B-4 B-3	C520 C521	G-2 G-1	FUS	E	Q205 Q206	F-9 D-10	R134 R135	B-11 B-11	R319 R320	B-5 B-6	R507 R508	E-3 E-1	SWIT	
A1	B-9 B-3	C306 C307	B-3 B-4 D-4	C521 C522 C523	G-1 I-1	F601 F602	H-13 I-8	Q241 Q301	G-7 B-5	R137 R138	B-11 B-9	R321 R322	B-6 B-5	R510 R511	D-3 F-1 C-4	S001 S002	A-13 A-10 A-10
A2 A3 A4	I-5 I-11	C308	D-4 B-5	C524 C525	C-3 H-2	IC		Q302 Q303 Q401	B-4 B-5 D-5	R139 R140 R141	A-10 A-13 B-13	R324 R325 R327	B-5 B-5 B-5	R512 R513 R515	F-3 F-4	S003 S004 S005	A-10 A-9 A-9
A5 A6	F-4 H-7	C310 C313 C314	C-3 C-5 C-6	C527 C528 C529	F-3 G-3	IC051	C-10	Q401 Q402 Q403	D-6 D-6	R142 R143	B-12 B-12	R328 R401	C-6 D-4	R516 R517	G-4 G-4	S006 S010	A-2 A-5
A7 A8	H-3 I-13 E-4	- C315	D-3	C530	E-1	IC101 IC102	B-11 D-12	Q404	F-5.	R144	B-13	R402	E-5	R518	H-3	S011 S012	A-5 A-8
A9 A10	D-8	C317 C318	B-6 B-6	C531 C533	H-5 H-5	IC103 IC301	E-11 C-4	Q405 Q406	D-7 E-6	R150 R151 R153	C-13 G-13 D-10	R403 R404 R405	E-5 E-5 E-5	R519 R520 R521	F-3 I-3 H-1	S013 S014	A-7 A-2
DY1 R524	F-3 B-1	C319 C320	B-6 B-5	C540 C541	D-1 C-1 C-2	IC401 IC402 IC403	D-6 F-6 D-7	Q407 Q408 Q409	E-5 B-8 C-7	R154 R155	D-10 D-11 D-11	R406 R407	E-5 D-6	R522 R523	H-1 H-1	S015 S016	A-6 A-6
CAPAC	ITOR	C321 C322 C323	B-5 B-5 B-5	C542 C543 C544	C-2 E-2	1C404 1C405	E-7 E-7	Q410 Q411	B-8 C-8	R156 R157	D-10 D-10	R408 R409	D-6 D-6	R524 R525	B-1 E-2	S017 S501	A-1 E-3
C051	B-8	C325 C326	C-4 B-6	C545 C551	E-2 H-5	1C406	E-6	Q413 Q414	F-6 E-7	R158 R159	D-11 E-9	R410 R411 R412	D-6 D-6	R526 R527 R528	1-3 1-3 J-2	TRAN	NS-
C052 C053	D-9 C-10	C401	E-4	C552	H-4	IC501 IC601	C-1 J-6	Q416 Q501	F-5 E-2	R160 R161	E-12 F-10	R412	E-5 F-5	R529	J-1	FORM	IER
C054 C101	C-10 F-11	C402 C403 C404	D-5 D-5 D-6	C553 C557 C601	C-4 D-1 I-12	IF BL	OCK	Q502 Q503	F-2 F-8	R162 R163	E-9 D-9	R414 R416	F-5 F-6	R530 R531	C-3 1-4	T301 T401	B-6 G-5
C102 C103 C104	F-7 G-8 F-12	C404 C406 C407	F-5 F-4	C602 C603	H-9 J-8	IF201	F-10			R164 R165	E-9 E-9	R417 R418	F-6 F-6	R533 R534	1-3 D-4	T501 T503	F-1 1-2 1-12
C104 C106 C107	E-13 F-11	C408 C409	F-7 G-5	C608 C614	G-12 H-8			RESIS	C-8	R166 R167 R170	D-9 E-12 A-12	R419 R420 R421	C-8 G-9 C-8	R535 R537 R538	C-2 F-9 F-8	T601	
C108	F-10	C410 C411 C412	D-7 C-7 C-7	C615 C616	H-12 F-13	L051	C-10	R051 R053 R054	C-9 B-9	R170 R171 R172	B-11 A-11	R422 R423	C-7 F-6	R539 R541	C-2 E-2	THE	
C109 C110 C111	B-13 B-13 C-13	C412	G-5	DIO	DE	L101 L102	B-13 C-11	R056 R057	B-10 B-10	R173	E-11	R424	C-8	R542 R543	D-2 D-2	TH301 THP601	B-4 I-11
C112 C113	D-11 D-11	C414 C415	E-7 E-8	D005	A-5	L103 L104	E-10 E-11 D-8	R058 R059 R060	D-10 D-10 B-10	R174 R175 R176	C-11 B-10 D-13	R425 R426 R427	C-7 F-6 C-7	R544 R545	E-3 E-2		
C114 C115	D-11 D-11	C416 C418 C419	G-5 E-8 D-7	D101 D102 D103	H-11 C-13 C-12	L105 L106 L107	C-9 E-13	R061 R062	B-9 B-9	R195 R201	G-6	R428 R429	B-7 C-8	R552 R601	H-6 J-9	TUN	
C116 C117	C-11 H-10	C419 C420 C421	G-5 C-8	D103	B-10 B-10	L108 L109	B-13 H-10	R101	G-8	R202 R203	G-6 G-6	R430 R431	B-7 B-8	R602 R603	1-8 1-6	TU101	G-9
C118 C119	F-8 C-13	C422 C423	F-5 F-4	D106 D107	G-13 D-11	L201	G-11	R102 R103	G-7 G-11 E-11	R204 R205	G-6 G-10	R432 R433	C-7 C-7	R604 R605	1-7 1-8	CRYS	TAL
C120 C121	F-13 E-9	C424 C425	E-7 C-7	D108 D109	E-10 A-1	L301 L303 L304	B-3 A-3 C-6	R104 R105 R106	E-11 F-8	R208 R210	G-9 D-11	R434 R435	C-7 E-7	R606 R607	H-6 I-8	X301	C-4
C122 C123 C124	E-10 E-12 E-11	C425 C426 C430	E-5 E-7	D201 D241	G-6 G-7	L401 L402	D-5 C-8	R107 R109	E-8 E-13	R211 R220	D-12 D-8	R436 R438	F-5 F-5	R610 R612	F-12 G-12 I-12		
C125 C126	E-12 F-12	C431 C432	G-5 D-8	D301 D302	B-1 B-4	L501 L503	F-2 I-1	R110 R111	E-13 E-12	R221 R222 R223	F-9 D-9 D-10	R440 R441 R442	E-7 E-7 E-8	R613 R614 R615	G-13 I-10		
C127 C128	E-10 E-9	C433 C435 C439	C-8 F-5 D-7	D303 D304 D402	B-3 B-3 F-5	L601 L602	I-10 J-11	R113 R114	B-13 B-13	R224 R226	D-9 C-11	R443 R444	D-7 D-8			-	
C128 C129 C130	C-11 E-10	C440	E-8	D405 D406	E-5 G-5	L603	F-12	R115 R116	A-10 A-10	R227	C-11	R445 R446	D-7 D-7	VARIA RESIS	TOR		
C132 C133	B-13 D-11	C441 C442	D-8 D-8	D407	C-8	TR		R117 R118 R119	C-11 C-12 C-12	R228 R241 R242	D-10 F-7 F-7	R445 R447 R448	E-6 F-4	RV301 RV302	A-3 A-3		
C134 C135	B-8 D-13 B-12	C443 C444 C445	D-7 E-7 E-5	D501 D502 D503	C-1 D-4 F-8	Q101	D-10	R119 R120 C121	C-12 C-12 D-11	R251 R301	B-8 D-5	R449 R450	G-5 F-5	RV303 RV304	A-4 B-8		
C136 C201 C202	F-6 F-6	C446 C447	E-5 E-5	D504 D505	F-3 C-2	Q102 Q104	F-12 C-13	R122	B-11	R303 R304	A-2 B-3	R451 R452	E-6 F-7	RV401 RV402	D-6 F-6		
C210	D-12	C501 C503	D-5 D-3	D508 D511	1-5 1-3	Q105 Q106	D-11 F-8	R123 R124	C-12 A-10	R305 R306	B-3 B-3	R453 R454 R455	E-6 E-6 E-5	RV403 RV501 RV502	E-6 C-5 C-2	no. 79	
C211 C217	D-12 E-7	C505	C-3	D512 D513	I-1 H-4	Q107 Q109 Q110	E-9 F-11 F-10	R125 R126 R127	A-10 B-9 A-9	R307	B-3 B-3	R456	E-5	RV503	F-3		
C230 C231 C241	D-8 D-9 E-7	C506 C507 C508	F-8 D-1 E-2	D514	H-1 H-5	Q170 Q201	A-11 G-6	R128 R129	C-11 D-11	R310 R311	B-7 B-3	R457 R458	E-5 E-5	RV504 S018	E-4 A-4		
C257 C258	D-9 C-11	C509 C510	F-2 C-5	D601 D602	1-9 1-6			R131 R132	D-11 B-10	R312 R313	D-3 C-4	R459 R460	E-4 C-9	REL	ΔV		
C302 C303	D-4 C-5	C511 C512	F-1 C-2	D603 D604	G-12 H-12			R133	B-10	R314 R315	B-4 A-3	R501 R502 R503	D-5 D-4 D-4	RY601		-	
		C515 C518 C519	H-1 I-4 J-4	D605 D606 D607	I-10 F-13 H-12					R316 R317 R318	B-4 B-4 B-7	R505 R506	F-1 E-3	111001			
		6519	0-4	5007	11-12												

[AUDIO CONTROL, AUDIO OUT,] MTS DECORDER



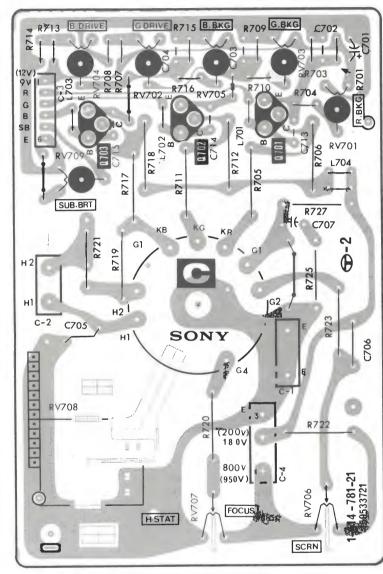
(KV-1380R/RM-731)

[VIDEO IN, AUDIO OUT]





[R-G-B OUT]



FOCUS

Adjust RV707 for best Focus.

SUB BRT

- 1. Receive a broadcast.
- 2. Set the PICTURE control at minimum and turn the BRIGHT knob for optimum picture.
- 3. Adjust RV709 for optimum brightness.
- 4. Set the PICTURE button for best picture.
- 5. Receive each channel and check that there are no extremes of brightness.

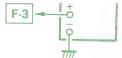


[SPEAKER OUT]



[INDICATOR]





SUB PICTURE

RV304 = B-8

1. Feed in a color-bar signal.

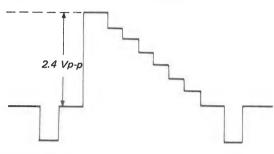
• PIC VR MAX

BRT VR . . . center position

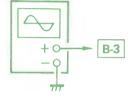
• COL VR ... MIN

• HUE VR . . . center position

2. Connect an oscilloscope to the pin 24 of IC301. Turn RV304 and adjust to 2.4 Vp-p.



oscilloscope



3.58 MHz TRAP

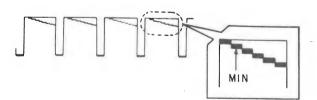
T301 = B-6

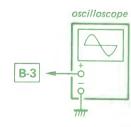
Feed in a color-bar signal.

PIC VR . . . MAX, BRT VR . . center position COL VR . . MIN, HUE VR . . . center position

2. Connect an oscilloscope to the pin (24) of IC301.

3. Adjust by T301 so that chroma-components become minimum.





V ST signal

: Carrier: 15.734 kHz, 0.14 Vp-p

: 400 Hz 100% modulation (±10 kHz

Carrier: 78.67 kHz (±15 kHz devia-

deviation) 0.42 Vp-p at TP21.

tionl

(±5 kHz deviation) at TP21.

MPX LEVEL ADJUSTMENT

RV807 = A-6

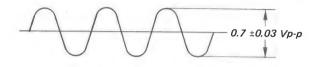
1. Receive 400 Hz (100% modulation) sound signal.

2. Connect an oscilloscope to TP21 (MPX IN).

3. Adjust RV807 so that the MPX level is 0.7 ±0.03 Vp-p.

V SUB (L-R) signal : 400 Hz, 1.4 Vp-p (50 KHz devia-

tion) at TP21.

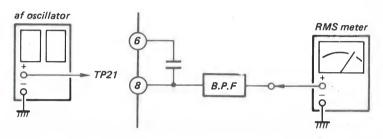


SAP FILTER

V SAP signal

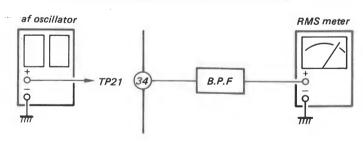
RV812 = A-6

- 1. Supply a 62.94 kHz, 0.42 Vp-p sine wave signal to TP21 (MPX IN) terminal.
- 2. Connect the B.P.F (62.94 kHz) to pin (8) of IC801.
- 3. Adjust RV812 (SAP FILTER) to minimum.



STEREO FILTER

- 1. Supply a 78.67 kHz, 0.42 Vp-p sine wave signal to TP21 (MPX IN) terminal.
- 2. Connect the B.P.F (78.67 kHz) and RMS meter to pin 34 of IC801.
- 3. Confirm that the on RMS meter is less than 30 mVrms.



H SIZE ADJUSTMENT

H.CENT = G-4

1. Adjust H.CENT to set for the best picture.

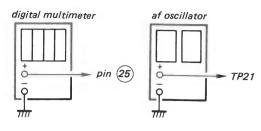
2. If item 1 can not attaived, connect the 0.047 μF MYLAR capasitor (C526) in parallel with C528 on the A board.

IC801 to become Va then, confirm that the Va at this point is $Va = 3.4 \pm 0.3 \text{ V dc.}$

3. Connect the pin (4) of IC801 and ground.

At this point, let the DC current voltage to pin (25) of IC801 to become Vb.

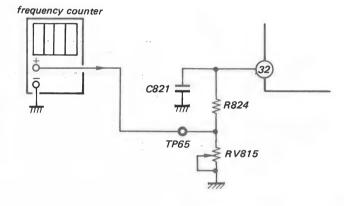
4. Adjust R V811 (SAP VCO) so that Vb becomes. Vb = Va ±0.1 V dc



STEREO VCO

RV815 = A-3

- 1. Connect a 10 μF capacitor to TP21 (MPX IN) and ground.
- Connect a frequency counter to the center tap of RV815 (ST VCO).
- 3. Adjust RV815 for 62.94 ±0.1 kHz frequency.



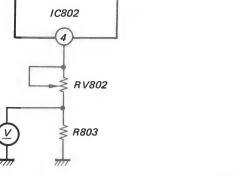
PILOT CANCEL ADJUSTMENT

RV817 = B-4

- Supply a VST signal to TP21 (MPX IN) terminal, set the DECODER into MAIN mode.
- 2. Adjust RV817 (PILOT CANCEL) so that the output from pin 40 of IC801 becomes minimum by observing it by observing it by observing it by using an oscilloscope and viewing it through a filter ($f_H = 15.734$ kHz Bandpass filter).
- 3. Confirm that the STEREO LED is lit.

oscilloscope filter pin 40

to ground.



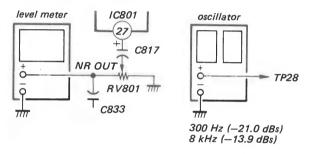
PRE-VARIABLE DE-EMPHASIS ADJUSTMENT

RV804 = A-1

- 1. Open pin 24 of IC801.
- 2. Input sine wave of 300 Hz, -21.0 dBs with TP28 (NR IN). At this point, let the level of C833 to become V1.
- 3. Input sine wave of 8 kHz, -13.9 dBs with TP28 (NR IN) in a similar as step 2.

At this point, let the level of C833 to become V2.

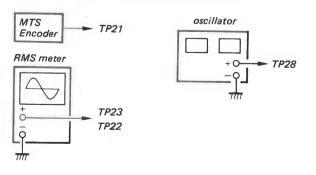
4. Adjust RV804 (VD ADJ) so that the relationship between V1 and V2 becoems $V2 = V1 - (11.3 \pm 0.3)$ dBs.



PRE-SEPARATION

RV801 = B-3

- 1. Supply a V MAIN signal to TP21 (MPX IN) terminal.
- 2. Set the DECODER into MAIN mode.
- 3. At this point, read the level to TP23 (TV-R OUT) and let it to become VR. Then, confirm that VR is 480 ±48 mVrms.
- Supply a VST signal to TP21 (MPX IN) terminal. Stop the input of V MAIN which has been input previously. Keep the DECODER into MAIN mode.
- 5. As in the similar procedure of the Variable Deemphasis. Adjustment, input sine wave of 300 Hz, -18.0 dBs with TP28 (NR IN).
- At this point, when the level of TP22 (TV-L OUT) is assumed to be VL, adjust RV801 (SEPARATION) so that VL = VR x 1/4 ±3.0 mVrms is obtained.



SAP LEVI

Q,

-<u>↓</u>(-

R866

R865

R863

R86

1. Receive (SUB S. ENCOD

2. Set the 3. Connect

4. Adjust I

Encoder

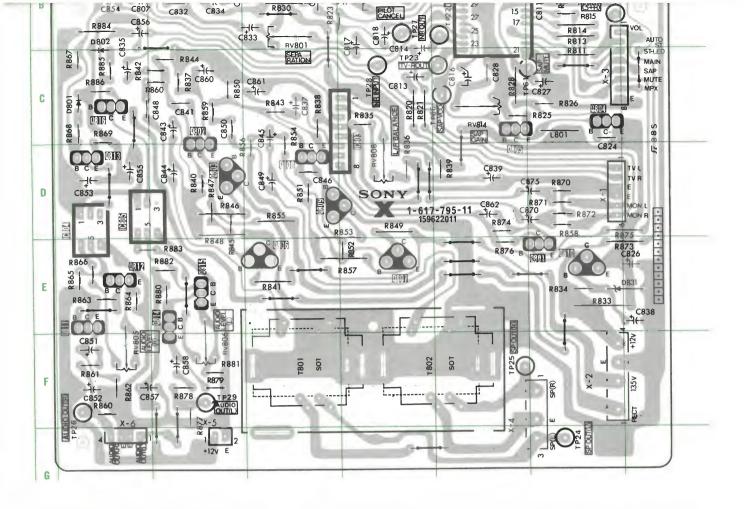
(L-R) LEV

1. Receives (SUB SA ENCOD

2. Set the I

3. Connect 4. Adjust F

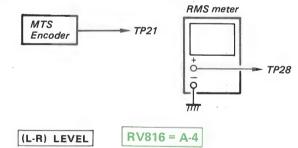
MTS Encoder



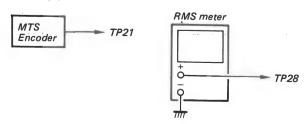


RV814 = C-5

- 1. Receives a composit signal. (SUB SAP signal and STEREO PILOT signal) from a MTS ENCODER to TP21 (MPX IN) terminal.
- 2. Set the SAP mode.
- 3. Connect the RMS meter to TP28 (NR IN).
- 4. Adjust RV814 for 489 ±15 mVrms.



- Receives a composite signal.
 (SUB SAP signal and STEREO PILOT signal) from a MTS ENCODER to TP21 (MPX IN) terminal.
- 2. Set the MAIN mode.
- 3. Connect RMS meter to TP28 (NR IN).
- 4. Adjust RV816 (L-R GAIN) for 489 ±15 mVrms.



AV INPUT/OUTPUT LEVEL ADJUSTMENT

RV401 = D-6	RV402 =	F-6	RV403 = E-6
RV801 = B-3	RV805 =	F-1	RV806 = F-2

- 1. Connect an oscilloscope to the DET OUT (TP12).
- Input the specified signal to RF/VIDEO and turn the RF/VIDEO selection switch ON and OFF, and adjust with RV401 so that both the Y signal levels become equivalent.

Input signal

RF: color-bar 87.5% TV modulation

VIDEO: color-bar 75% 0.82 Vp-p 75 Ω sync negative

- 3. Connect an oscilloscope to TP22 (TV L OUT) and TP23 (TV R OUT).
- 4. Input the specified signal to RF/VIDEO (L) and (R) and turn the RF/VIDEO selection switch ON and OFF, and adjust with RV402 and RV403 so that both the signal levels become equivalent. Then, terminate TP26 (AUDIO OUT R) and TP29 (AUDIO OUT L) with 47 kΩ respectively, and adjust with RV805 (R) and RV806 (L) so that the output level becomes 408 mVrms.

Input signal

RF: dot signal. AUDIO 400 Hz (100% modulation) AUDIO: 400 Hz -5.62 dBs (0.408 Vrms)

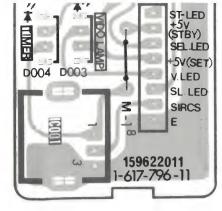
L/R BALANCE ADJUSTMENT

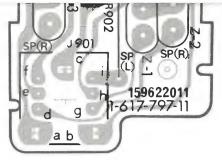
RV808 = D-4

 Input the specified signal to RF and adjust with RV808 (L/R BALANCE) so that the levels of TP25 (SP OUT R) and TP24 (SP OUT L) become equivalent at the VOL. MAX.

Input signal

RF: dot signal. AUDIO 400 Hz (100% modulation) AUDIO: 400 Hz -5.62 dBs (0.408 Vrms)







CAPACITOR	C855 D-1 C856 B-1	RESISTOR	R855 D-3 R856 D-3	TRANS- FORMER
C801 A-2 C802 B-1 C803 B-3 C804 B-3 C805 B-2 C806 A-2 C807 B-1	C857 F-1 C858 F-2 C860 C-2 C861 C-3 C862 D-5 C870 D-6 C875 D-6	R802 A-3 R803 A-3 R804 B-2 R805 B-1 R806 A-1 R807 A-1	R857 E-4 R858 D-6 R859 C-2 R860 F-1 R861 F-1 R862 F-1 R863 E-1	T801 F-3 T802 F-4
C808 A-1 C809 A-1	C899 A-5	R809 B-2 R811 C-6	R864 E-1	X1 D-6 X2 F-6 X3 C-6
C810 A-6	DIODE	R813 B-6	R866 E-1 R867 C-1	X4 F-6 X5 G-2
C811 B-6 C812 A-6 C813 C-4 C814 C-4 C815 A-4	D801 B-5 D802 B-1 D831 E-7	R815 B-6 R816 B-6 R817 A-6 R818 A-6	R868 C-1 R869 C-1 R870 D-6 R871 D-6	X6 G-1
C816 C-5 C817 B-4 C818 B-4	IC	R819 A-6 R820 C-4 R821 C-4	R872 D-6 R873 E-7 R874 D-5	
C819 B-3 C820 B-4 C821 B-4 C822 A-4 C823 A-4	IC801 B-5 IC802 A-2 IC803 C-4 IC804 D-1 IC805 D-1	R822 A-4 R823 B-4 R824 B-4 R825 C-6 R826 C-6	R875 D-7 R876 E-5 R877 F-2 R878 F-2 R879 F-2	
C824 C-6 C825 A-5	COIL	R827 B-3 R828 C-5	R880 E-2 R881 F-2	
C826 E-7 C827 C-6 C828 C-5	L801 C-6	R829 A-6 R830 B-3 R831 A-5	R882 E-2 R883 E-2 R884 B-1	
C829 B-7 C830 A-6	TRAN- SISTOR	R833 E-6 R834 E-6	R885 C-1 R886 C-1	
C831 A-2 C832 B-2 C833 B-3 C834 B-2 C835 C-1	Q801 E-6 Q802 C-2 Q803 D-2 Q804 C-6	R835 C-4 R836 D-4 R837 C-2 R838 C-3 R839 D-5	VARIABLE RESISTOR	
C835 C-1 C837 C-3 C838 E-7 C839 D-5 C841 C-2 C843 C-2	Q804 C-6 Q805 C-5 Q806 E-3 Q807 E-4 Q808 D-3 Q809 D-3 Q810 E-6	R840 D-2 R841 E-3 R842 C-2 R843 C-3 R844 C-2	RV801 B-3 RV802 A-3 RV804 A-1 RV805 F-1 RV806 F-2 RV807 A-6	
C844 D-2 C845 C-3 C846 D-3 C848 C-2 C849 D-3	Q811 E-1 Q812 E-1 Q813 D-1 Q814 E-2	R845 D-2 R846 D-2 R847 D-2 R848 D-2 R849 D-4	RV808 D-4 RV811 B-6 RV812 A-6 RV814 C-5	
C850 C-2 C851 F-1 C852 F-1 C853 D-1 C854 B-1	Q815 E-2 Q816 C-1	R850 C-2 R851 D-3 R852 E-4 R853 D-4 R854 C-3	RV815 A-3 RV816 A-4 RV817 B-4	

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9-963-570-11 Sony Corporation

KV-1380R

SONY. SERVICE MANUAL

US Model

Serial No. 8,000,001 and later Chassis No. SCC-754D-A

SUPPLEMENT-1

File this supplement with the service manual.

INTRODUCTION

	SEP-UP ADJUSTMENTS Addition	2
SECTION. 5	EXPLODED VIEWS has been changed	5
SECTION 6	ELECTRICAL PARTS LIST (Difference list)	6



SET-UP ADJUSTMENTS (Adjusting Magnetizing-system ITC Picture Tube for Repair)

The magnetizing-system ITC (Integrated Tube Component) does not have a function to adjust the purity static convergence. Therefore, the cylindrical magnet attached to the deflection yoke has to be replaced with a 2.4.6-pole magnet at the same time when a picture tube is replaced.

The replacement and adjusting methods are described below.

- These adjustments should be performed with rated power supply voltage unless otherwise noted.
- Controls and switch should be set as follows unless otherwise noted:

PICTURE control normal position BRIGHTNESS control click position

Perform the adjustments in order as follows:

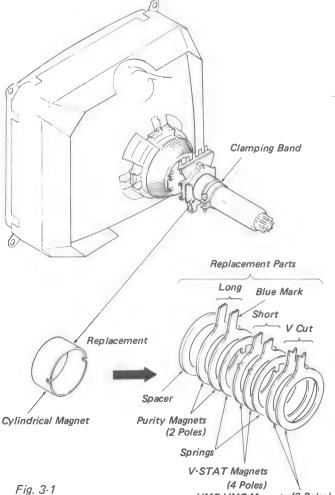
- 1. Beam Landing
- 2. Convergence
- 3. Focus
- 4. White Balance

Note: Test Equipment Required.

- 1. Color-bar/Pattern Generator
 - 2. Degausser
 - 3. Oscilloscope

Preparations

- 1. Remove the clamping band from the deflection yoke and dismount the cylindrical magnet.
- 2. Mount the replacement parts and clamping band, which are contained in the package box containing the picture tube, in the position from which the cylindrical magnet was removed. (See Fig. 3-1.)



3-1. BEAM LANDING

- 1. Face the set picture tube surface toward east or west to reduce the effects of terrestrial magnetism.
- 2. Reduce the magnetism of each correction magnet in the replacement parts to zero field. (See Fig. 3-2.)

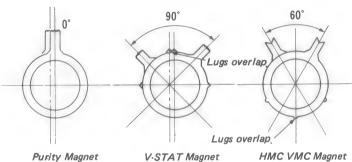
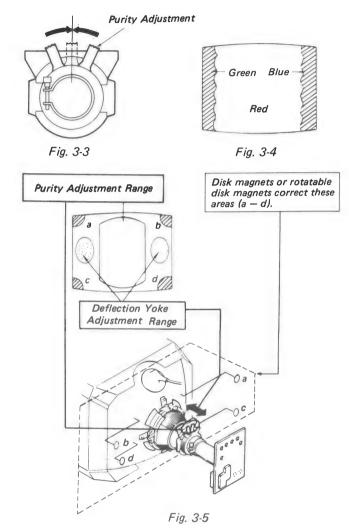


Fig. 3-2

- 3. Receive an all-white signal using a pattern generator.
- 4. Turn the set POWER switch on and demagnetize using a degausser.
- 5. Rotate the PICTURE control to NORMAL and the BRIGHTNESS control to the CLICK position.
- 6. Roughly adjust the white balance, screen, and convergence.
- 7. Rotate the red BKG VR (RV701) to the maximum position and the green and blue BKG VRs to the minimum positions.
- 8. Slide the deflection yoke backward to show red in the picture center and adjust the purity magnet to obtain a horizontal symmetry. (See Figs. 3-3, 3-4, and 3-5.)
- 9. Slide the deflection yoke forward to show red only throughout the picture.
- 10. Substitute green, then blue for red in step 7 and check landing.
- 11. Rotate red, green and blue once each and check landing.

HMC VMC Magnets (6 Poles)

- 12. Correct with the magnet if the landing in the corners cannot be adjusted. (See Fig. 3-5.)
- 13. Clamp the clamping band to fix the deflection yoke after deciding its position.



3-2. CONVERGENCE

Preparation:

Roughly adjust the V-SIZE and focus.

(1) Horizontal and Vertical Static Convergence

- 1. Receive a dot signal using a pattern generator.
- 2. Rotate the BRIGHTNESS control to the minimum position and the PICTURE control to NORMAL.
- 3. Overlap the R and B dots in a horizontal direction in the center of the picture using the H·STAT VR knob. (See Fig. 3-6.)
- 4. Overlap the R and B dots in a vertical direction in the center of the picture using the V-STAT magnet (4-pole ring magnet). (See Fig. 3-7.)

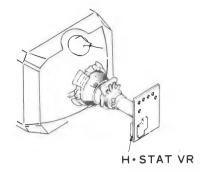


Fig. 3-6

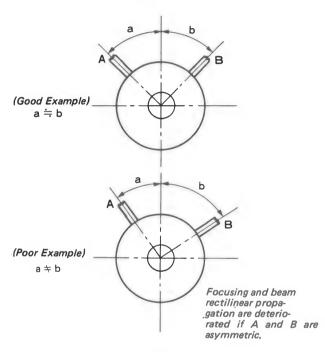
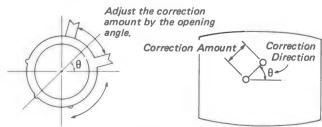


Fig. 3-7

5. Overlap the R and B·G dots in horizontal and vertical directions in the center of the picture using the HMC and VMC magnets (6-pole ring magnets). Adjust the correction amounts of the R and B·G dots by the opening angle of the magnets. Adjust the direction by rotating the two magnets simultaneously. (See Fig. 3-8.)

NOTE: If the H·CENT tap is changed over after adjusting H·STAT, readjust H·STAT.



Adjust the correction direction by rotating the two magnets simultaneously.

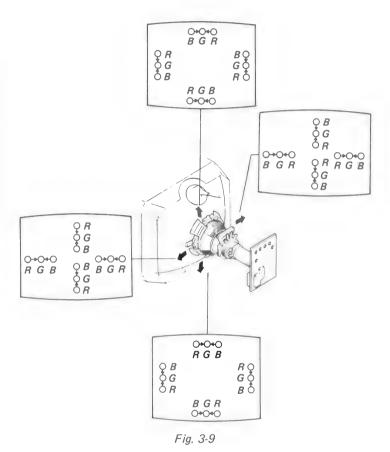
Fig. 3-8

(2) Dynamic Convergnece Adjustment

Preparation:

Before stating, perform Horizontal and Vertical Static Convergence Adjustment.

- 1. Loosen the Clamping Band of deflection yoke.
- 2. Adjust the cross tilt misconvergence at the H and V axis ends in the picture to the best condition by oscillating the deflection yoke. (See Fig. 3-9.)



3. Fix the deflection yoke by driving three wedges between the deflection yoke and picture tube funnel.

- 4. Correct with Permalloy if the peripheral convergence cannot be corrected. (See Fig. 3-10.)
- Paint-lock each magnet after finishing adjustment so that the magnets can not move.

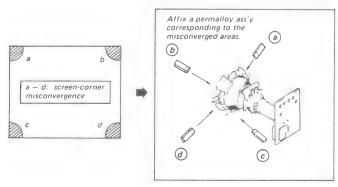


Fig. 3-10

3-3. FOCUS ADJUSTMENT

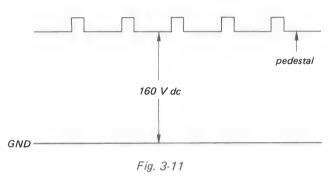
Adjust FOCUS control (RV707) for a best picture.

3-4. WHITE BALANCE ADJUSTMENT

[SCREEN (G2)]

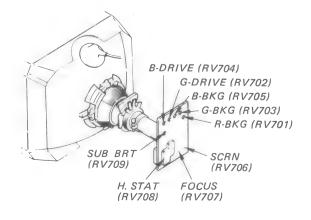
- 1. Receive a dot signal using a pattern generator.
- 2. Rotate the BRIGHTNESS control to the minimum position and the PICTURE control to NORMAL.
- 3. Adjust BKG VRs (RV701, RV703, and RV705) so that voltages on the red, green and blue cathodes are 160 V dc with an oscilloscope as shown in Fig. 3-11.
- 4. Observe the screen and adjust SCREEN (RV706) to obtain the faintly visible background of dot signal. Note the color that first becomes visible by turning SCREEN VR

Do not turn a BKG control for this color.



[WHITE BALANCE]

- 1. Receive an all-white signal using a pattern generator.
- 2. Rotate the PICTURE control to NORMAL and the BRIGHTNESS control to the CLICK position.
- 3. Observe the screen and adjust the other two BKG VRs for best white balance.
- 4. Rotate the PICTURE control to maximum.
- 5. Observe the screen and adjust the DRIVE VRs (RV702, RV704) for best white balance.
- 6. Repeat steps 2 through 5 several times.



SECTION 5 **EXPLODED VIEWS**

NOTE:

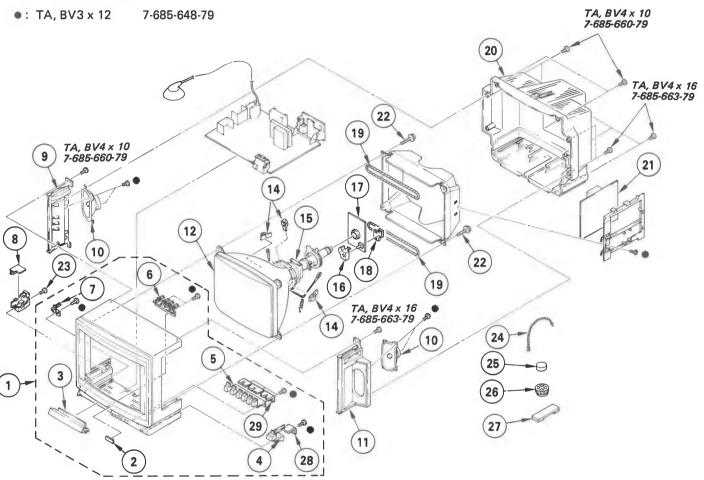
- NOTE:

 Items with no part number and no description are not stocked because they are seldom required for routine service.

 The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routing service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark A are critical for safety.
Replace only with part number specified.

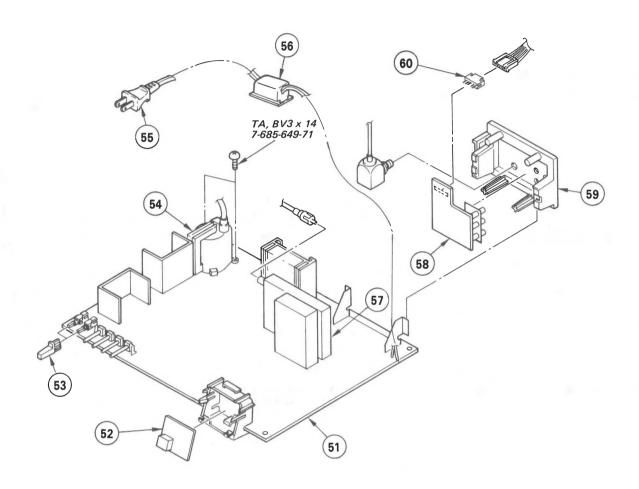
5-1. PICTURE TUBE



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1 2 3 4 5 6	X-4379-902-2 4-379-910-01 4-379-921-01	EMBLEM, SONY DOOR ASSY, CONTROL BUTTON, POWER BUTTON, UP/DOWN BUTTON, MULTI	2-7,28,29	16 17 18 19 20 21	*A-1330-601-A *4-374-913-01 <u>A</u> .1-426-146-51 4-379-917-21 *A-1386-027-A	COVER (MAIN), CV VOL C BOARD, COMPLETE COVER (REAR LID), CV VOL COIL, DEMAGNETIZATION COVER, REAR X BOARD, COMPLETE SCREW, TAPPING (5X20)	
8 9 10 11 12 14 15	*1-617-797-11 X-4379-903-1 1-503-605-11 X-4379-904-1 A .8-735-553-75 3-703-961-01	Z BOARĎ PANEL (LEFT) ASSY, SPEAKER SPEAKER PANEL (RIGHT) ASSY, SPEAKER PICTURE TUBE (A34JBU10X)		23 24 25 26 27 28 29	3-703-083-00 4-308-870-00 1-452-032-00 1-452-094-00 X-4309-608-0 *4-379-925-01		

Serial No. 2,000,001 and later Serial No. 5,000,001 and later Serial No. 8,000,001 and later

5-2. CHASSIS



No.	Part No.	Description	Remark	No.	Part No.	Description		Remark
52	*1-617-796-11			57		HOLDER, AC CORD TUNER, ET (BTP-201A)		
54	4-379-901-01 A.1-439-314-22 A.1-559-396-11	TRANSFORMER ASSY, FLYBACK		59	▲.1-537-004-11	TERMINAL BOARD ASSY, PIN, CONNECTOR 10P	ANTENNA	

The components identified by shading and mark $\underline{\Lambda}$ are critical for safety. Replace only with part number specified.

SECTION 6 ELECTRICAL PARTS LIST (Difference list)

Serial No.5000001 and Later					Ser	ial No.8000001	and Later				
Ref.No	Ref.No. Part No. Description Remark			Ref.No.	Ref.No. Part No. Description				Remark		
	*A-1296-121-A	A BOARD, COMPLET	E *				*A-1296-121-A	A BOARD, CO	MPLETE *****		,
	CAP	ACITOR					CAP	ACITOR			
C258 C505 C521 C542	1-108-749-91 1-106-184-00 1-106-198-00 1-108-835-00	MYLAR 0.0 MYLAR 0.0	033MF : 12MF :	5% 10% 10% 10%	50V 100V 100V 50V	C258 C505 C521 C542	1-106-347-00 1-106-355-12 1-108-378-00 1-108-237-00	MYLAR MYLAR	0.0015MF 0.0033MF 0.012MF 0.0068MF	5% 10% 10% 10%	50V 100V 100V 50V
	DIO	DE					<u>D10</u>	DÉ			
D107 D201 D402 D502 D503	8-719-101-38 8-719-102-99 8-719-102-99 8-719-156-07 8-719-102-72	DIODE RD3.6E-L1 DIODE RD13E-N1 DIODE RD13E-N1 DIODE RD5.6E-B DIODE RD5.6E-N3				D107 D201 D402 D502 D503	8-719-101-39 8-719-103-06 8-719-103-06 8-719-100-35 8-719-102-71	DIODE RD13E DIODE RD13E DIODE RD5.6	- N2 - N2 E- B2		
D508 D515 D605	8-719-901-93 8-719-901-93 8-719-200-02	DIODE V19E DIODE V19E DIODE 10E2				D508 D515 D605	8-719-918-77 8-719-918-77 8-719-911-55	DIODE V19G DIODE V19G DIODE UO5G			
****	******	******	*****	*****	******	*****	*****	*****	*****	*****	******
	*1-617-796-11	M BOARD					*1-617-796-11	M BOARD *****			
	DIO	DE					DIO	DE			
D001 D002 D004	8-719-311-23	DIODE SEL112NP-N DIODE SEL112NP-N DIODE SEL112NP-N				D001 D002 D004	8-719-101-08 8-719-101-08 8-719-101-08	DIODE SR108 DIODE SR108 DIODE SR108)		
*****	******	******	*****	*****	*****	*****	*****	*****	*****	*****	*****
ACCESSORIES AND PACKING MATERIALS						IES AND PACK					
	Part No.	Description			Remark		Part No.	Description			Remark
	1-501-335-11 *4-379-927-01 *4-379-928-01 *4-379-929-01	ANTENNA, TELESCO INDIVIDUAL CARTO CUSHION (UPPER) CUSHION (LOWER)	(ASSY)	3)		,	1-501-372-21 *4-379-938-01 *4-379-939-01 *4-379-940-01	ANTENNA, TEU INDIVIDUAL (CUSHION (UPI CUSHION (LOW	CARTON PER) (ASSY)		



SONY SERVICE MANUAL

US Model

Chassis No. SCC-754D-A

CORRECTION-1

Correct the service manual as shown below. File this correction with the service manual.



: indicates corrected portion

3-1. SAFETY RELATED ADJUSTMENTS: Page 10

Incorrect

R524 ADJUSTMENT (HOLD DOWN)

When replacing the following components (marked with ■ on the schematic diagram), perform the adjustment as

R521, R522, R523, R524, R530, R534, C307, C524, D502, D512, T503, IC301

- Receive the dot signal PICTURE VR MIN BRIGHT VR MIN
- +B voltage check Confirm that the +B voltage (135V Line) is less than 136.2 Vdc during input of 130 $^{+2.0}_{-0}$ Vac.
- Protector voltage check Confirm that a voltage of $20.0^{+1.3}_{-1.7}$ Vdc appears between TP85 and ground during input of 120 $^{+1.0}_{-0}$ Vac.
- Operation check Confirm that the hold-down circuit operates (the raster diss apears) by adding 22.75 $^{+0}_{-0.05}$ Vdc between TP85 and ground.
- Receive the dot signal.
- Short IC601 pins (3) and (4).
- Input of 120 $^{+1.0}_{-0}$ Vac.
- Error operation check.

Correct

R524 ADJUSTMENT (HOLD DOWN)

When replacing the following components (marked with an the schematic diagram), perform the adjustment as

R521, R522, R523, R524, R530, R534, C307, C524, D502, D512, T503, IC301

- Receive the dot signal PICTURE VR MIN BRIGHT VR MIN
- 2. +B voltage check Confirm that the +B voltage (135V Line) is less than ightharpoonup 137.2 Vdc during input of 130 $^{+2.0}_{-0}$ Vac.
- Protector voltage check
 Confirm that a voltage of $20.0^{+1.3}_{-1.7}$ Vdc appears between TP85 and ground during input of 120 $^{+1.0}_{-0}$ Vac.
- Operation check Confirm that the hold-down circuit operates (the raster diss appears) by less than 22.75 Vdc between TP85 and ground.
- Receive the dot signal.
- Short IC601 pins (3) and (4).
- Input of 120 $^{+1.0}_{-0}$ Vac.
- Error operation check.

CHECK AFTER IC601 REPLACEMENT

- Supply 130 $^{+2.0}_{-0}$ Vac to with variable auto-transformer.
- 2. Receive the dot signal.
- 3. PICTURE VR MIN BRIGHT VR MIN
- Confirm that the +B voltage (135V Line) is less than 136.2 Vdc.
- If step 4 is not satisfied, replace IC601 in A board and repeat above steps.

CHECK AFTER IC601 REPLACEMENT

- Supply 130 $^{+2.0}_{-0}$ Vac to with variable auto-transformer.
- Receive the dot signal.
- PICTURE VR MIN BRIGHT VR MIN
- Confirm that the + B voltage (135V Line) is less than 137.2 Vdc.
- If step 4 is not satisfied, replace IC601 in A board and repeat above steps.

